DOCUMENT RESUME

ED 314 157 PS 018 437

TITLE	Caring for Our Common Wealth: The Economics of Child Care in Massachusetts. Prepared for the Massachusetts Affordability Task Force.
INSTITUTION	Massachusetts Univ., Boston. Center for Survey Research.; Wellesley Coll., Mass. Center for Research on Women.
SPONS AGENCY	Massachusetts State Dept. of Social Services, Boston.; Massachusetts State Office for Children, Boston.
PUB DATE	24 Jun 88
NOTE	53p.; Also supported by the United Way of Massachusetts Bay.
AVAILABLE FROM	Massachusetts Office for Children, 10 West Street, Boston, MA 02111 (free).
PUB TYPE	Reports - Research/Technical (143)
EDRS PRICE	MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS	*Day Care; *Delivery Systems; Differences; Early Childhood Education; *Futures (of Society); Grants; *Program Costs; Regional Characteristics; *State Programs; State Surveys; Tables (Data); Use Studies
IDENTIFIERS	*Affordability; *Economic Effects; Massachusetts; Service Utilization

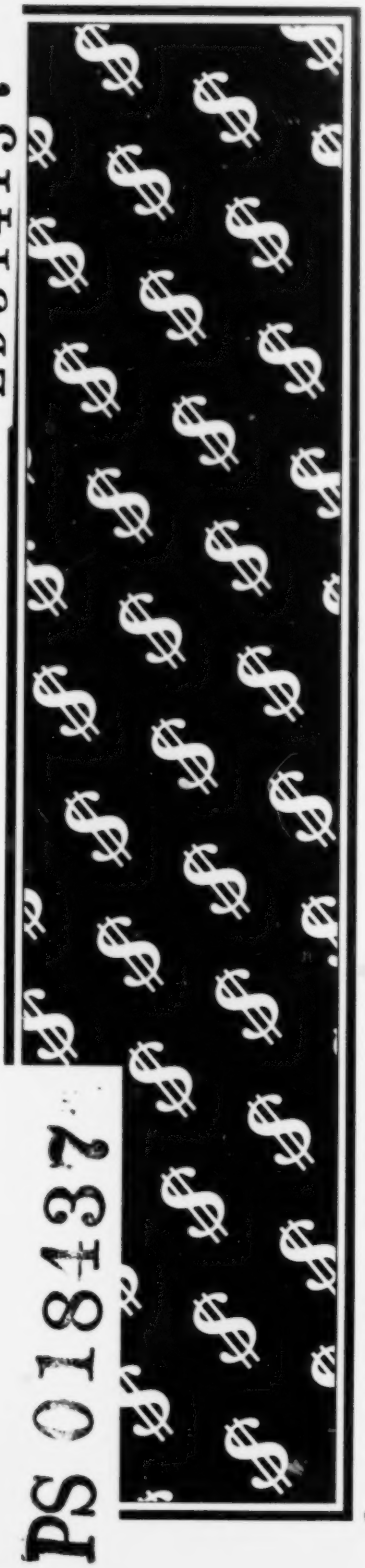
ABSTRACT

Researchers conducted a telephone survey of a random sample of 750 Massachusetts families with one or more children under the age of 13 in an effort to: (1) quantify the current use of various forms of child care by such families; (2) identify regional differences in the use of child care; (3) estimate the need for child care services in 1995; (4) improve understanding of the costs of providing child care in Massachusetts; (5) determine the scope of the affordability problem in the state and its impact on low and moderate income families; (6) review state resources for addressing the affordability problem; (7) review options for addressing the problem; and (8) illustrate costs and benefits of policies for helping parents with child care costs. In addition, licensed family day care providers and day care centers were randomly surveyed. This report presents findings of analyses of the three surveys, information gathered through discussions with child care experts, and a review of the related literature. Results indicate that if the Massachusetts economy is to continue to grow, the labor force must expand and child care is key to making this happen. A total of 17 tables supplements the text. Over 40 references are cited. An appendix identifies sources and amounts of philanthropic support for child care in 1984, 1985, and 1986. (RH)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

Caring for our Common Wealth

ED314157



PS 018437

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

X This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

The Economics of Child Care in Massachusetts

Commonwealth of Massachusetts
Philip W. Johnston
Secretary of Human Services

Mary Kay Leonard
Commissioner — Office for Children

United Way of Massachusetts Bay
Robert X. Chandler
President

"PERMISSION TO REPRODUCE THIS MATERIAL IN MICROFICHE ONLY HAS BEEN GRANTED BY

Center for Research on Women, Wellesley Coll.

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

CARING FOR OUR COMMON WEALTH:
THE ECONOMICS OF CHILD CARE IN MASSACHUSETTS

Prepared for the

Massachusetts Affordability Task Force

by the

Wellesley College Center for Research on Women

and the

Center for Survey Research,
University of Massachusetts at Boston

funded by the

Massachusetts Office for Children

United Way of Massachusetts Bay

and the

Massachusetts Department of Social Services

TABLE OF CONTENTS

Transmittal letter from Mary Kay Leonard, Chairperson of the Child Care Affordability Task Force

Acknowledgements iii

Executive Summary v
The Issue vi
The Findings vii
Conclusion viii

Introduction 1

Child Care in Massachusetts 3
The Demand for Child Care 3
Figure 1: Percent of children in non-parental care by age and family type 3
Figure 2: Proportion of those children in non-parental care in various forms of care 4
Table 1: Proportion of children at each age level in various forms of care 5
Table 2: Proportion of children in various forms of care by family characteristics 6
Figure 3: Total child hours spent in various forms of care in Massachusetts 7

The Projected Need for Child Care in 1995 8
Table 3: Family income and number of children 9
Table 4: Actual and projected number of Massachusetts children under age 6 in non-parental care 10
Table 5: Actual and projected number of Massachusetts children between 6 and 12 in non-parental care 11

The Scope of the Affordability Problem 13
Table 6: Child care fees for parents who do not say they receive subsidies 14
Table 7: Family expenditures for child care 15
Table 8: Proportion of family income spent on child care 16

Resources for Child Care 17
Figure 4: State Expenditures for child care services in Massachusetts 17

Addressing the Affordability Issue 21

Reducing the Burden on Parents 21

Reducing the Cost to Providers 24

Benefits of Providing Affordable Child Care 27
Child Care is Important to the Commonwealth 27
Table 9: Tax revenues to state from increased labor force participation 28
Table 10: Reduced state expenditures from reduction in number of welfare recipients 29

Child Care is Important to Employers 30

Economic Benefits to Individuals 31
Table 11: Distribution of economic benefits under subsidy #1 for individuals not now receiving subsidies 34
Table 12: Distribution of economic benefits under subsidy #2 for individuals not now receiving subsidies 35
Table 13: Distribution of economic benefits for individuals eligible for tax credit 36

Costs and Benefits 37
Table 14: Cost of subsidized child care under subsidy #1 38
Table 15: Cost of subsidized child care under subsidy #2 38
Table 16: Net economic benefits 40
Table 17: Net expenditures over revenues 40

Conclusions 43

References

Appendix: Massachusetts foundations which support child care

The Affordability of Child Day Care in Massachusetts: A technical report (Working Paper No. 181) by Nancy L. Marshall *et al* is available from the Center for Research on Women, Wellesley College.

THE COMMONWEALTH OF MASSACHUSETTS

EXECUTIVE OFFICE OF HUMAN SERVICES

OFFICE FOR CHILDREN

MARY KAY LEONARD
COMMISSIONER

10 WEST STREET, BOSTON, MASSACHUSETTS 02111

AREA CODE (617)
727-8900

June 24, 1988

Dear Friends:

On behalf of the Child Care Affordability Task Force, I am pleased to present **CARING FOR OUR COMMON WEALTH: THE ECONOMICS OF CHILD CARE IN MASSACHUSETTS.**

This work evolved out of the Governor's Day Care Partnership Project. An important outcome of the Project has been an increase in pay for child care workers in centers which contract with the state. This salary upgrading has resulted in a wage increase of more than 40 percent since July of 1985.

These increases have been essential in recruiting qualified child care staff. However, increased wages have resulted in increased costs for centers, and therefore, increased tuition for parents. While the Commonwealth subsidizes tuition for more than 28,000 low income children, many working families are choosing to forego jobs or education because the cost of child care is beyond their means. To evaluate how many families are in this situation, the state legislature created the Child Care Affordability Task Force.

The Task Force focused its energies on two complementary projects, this study and a pilot program known as the Affordability Scholarship Assistance Program (ASAP). Using a lottery system, ASAP has provided child care scholarships for 310 children and generated additional important information which has shed new light on how families manage child care costs.

This report represents a cooperative effort. The Office for Children and United Way of Massachusetts Bay provided funding. The Center for Survey Research at the University of Massachusetts at Boston conducted some 750 interviews in June 1987. The Wellesley College Center for Research on Women analyzed the data. We are proud of the result, and hope it will prove useful to public and private sector decision makers who are grappling with the question of how to assist parents with their child care costs.

Sincerely,

Mary Kay Leonard

Mary Kay Leonard, Chair
Child Care Affordability Task Force

ACKNOWLEDGMENTS

In 1985, the Massachusetts Legislature called for the creation of a task force on the affordability of child care. Chaired by the Commissioner of the Massachusetts Office for Children, this Task Force includes representatives of the Ways and Means Committees of the Massachusetts House and Senate; the Massachusetts Executive Offices of Human Services and Economic Affairs; the corporate sector; the Child Care Resource and Referral network; child care providers; a private funding source; and a Governor's appointee.

This report was prepared for the Task Force by Nancy L. Marshall, Ann Dryden Witte, Len M. Nichols, Fern Marx, Elizabeth Mauser, Bart Laws, and Barbara Silverstein. It is largely based on research carried out by a team at Wellesley College Center for Research on Women and the Center for Survey Research at University of Massachusetts, under contract to United Way of Massachusetts Bay and the Massachusetts Office for Children.

Wellesley College Center
for Research on Women

Nancy L. Marshall, Ed.D.
Project Director

Anne Dryden Witte, Ph.D
Economist

Len M. Nichols, Ph.D.
Economist

Fern Marx, M.A.
Research Associate

Elizabeth Mauser
Heide Deiner
Deborah Reed-Danahay
Harriet Griesinger
Kathryn Bangerter

Center for Survey Research

Mary Ellen Colten, Ph.D.
Study Director

Wendy Miller
Field Director

Day Care Affordability Task Force

Mary Kay Leonard, Chair
Office for Children

Carin Kale
House Ways and Means Committee

Bruce Bullen
Senate Ways and Means Committee

Sheri Adlin
Executive Office of Human Services

Day Care Affordability Task Force, Cont'd

Pat Cronin
Executive Office of Economic Affairs

Susan Fletcher
Department of Social Services

Ronnie Sanders
Department of Social Services

Richard L. Jones
United Way of Massachusetts Bay

Nancy Whitney
Shawmut Bank of Boston

Nancy DeProsse
District 65, United Auto Workers

Larry Jacobs
Springfield Day Nursery

Andrea Genser
Child Care Resource Center

Bob French
United Front Day Care

Task Force Staff

Barbara Silverstein
Office for Children

Bart Laws
United Way of Massachusetts Bay

Lucy Hudson
Office for Children

T.J. and her husband, James, have two children in care at the child care center where T.J. works. Because they were chosen to receive assistance through the Commonwealth's pilot project, the Affordability Scholarship Assistance Program (ASAP), T.J. was able to return to work after her younger child, now one year old, was born. "Without the scholarship, it would not have been worthwhile for me to work; day care would have been too expensive."

EXECUTIVE SUMMARY

Widely acknowledged as a national leader in child care, Massachusetts is justifiably proud of a statewide system that features:

- o comprehensive standards;
- o a Child Care Resource and Referral Program which helps parents locate care and advises organizations, businesses and individuals on how to start or expand a child care facility;
- o a Corporate Child Care Program to educate employers on the importance of child care in the state's economy;
- o the country's only state-funded training program for child care workers;
- o subsidies to help low-income families pay for care; and
- o a pilot Affordability Scholarship Assistance Program (ASAP), supervised by the Child Care Affordability Task Force, which targets certain families whose income makes them ineligible for a state-supported child care subsidy.

Recent noteworthy accomplishments of the Massachusetts child care system include the following:

- o During fiscal year (FY) '87, the state's licensing authority, the Massachusetts Office for Children (OFC), issued more than 5,400 licenses, bringing the total number of licensed child care providers to over 11,500. Capacity in child care centers and family day care homes rose by 20 percent between January 1985 and January 1988.
- o Between July 1, 1985 and December 31, 1987, the state funded CCR&R network helped more than 41,000 parents locate child care services. CCR&Rs also logged more than 8,600 calls from individuals and organizations interested in starting child care programs or instituting child care-related employee benefits.
- o Under the auspices of the Corporate Child Care Program, the number of employers providing child care programs or benefits rose to 115 by January of 1988.
- o Operating under OFC, the statewide child care worker training program provided educational courses and workshops at no charge to just over 9,000 caregivers during FY '88.
- o In January 1988, more than 28,800 children were receiving a child care subsidy through the Massachusetts Departments of Social Services and Public Welfare.
- o During FY '88, 310 children whose families earn between 71 and 100 percent of the state's median income received an ASAP scholarship.
- o Since July 1985, the Commonwealth has increased by more than 40 percent wages paid to child care workers in programs that contract with the state.

THE ISSUE

In Massachusetts, there are just over 487,300 children ages five years and under, and an additional 439,700 between the ages of six and 13 years. Of these 927,000 children, nearly three out of every five -- or about 550,000 -- live in a family where both parents work outside the home, or in a single parent family where that parent works. In recent years, the greatest increase in the labor force throughout the United States has been among women with children under three years of age. The Children's Defense Fund estimates that 9.5 million young children in the country have working mothers.

Currently, Massachusetts is in the middle of a new baby boom. Children born during the post World War II era are having babies. However, those infants are being born into a society undergoing a dramatic metamorphosis. The American dream family, typified by such popular television shows of the 1950s and '60s as Father Knows Best, The Donna Reed Show, and I Love Lucy, is becoming an artifact of the past. When World War II ended, women who had filled an important place in war-related industry went back to the kitchen; in 1950, just 29 percent of the nation's women were in the workforce (in Massachusetts, the percentage was slightly higher, at 32 percent). But today, 60 percent of Massachusetts women work.

This continuing movement of women into the workplace has resulted in a growing need for safe, affordable child care outside the family home. Today in the Commonwealth, there are nearly 2,000 licensed day care centers for pre-schoolers, another 580 programs serving school-aged children, and more than 9,200 state-monitored family day care homes. These facilities comprise a vitally important service industry wich cares for nearly 160,000 children on any given working day. As with any other type of business, there are economic realities associated with providing child care.

Even though the Commonwealth subsidized child care for more than 28,000 children in FY '88, low and moderate income families are hard-pressed to pay the cost of day care. Many of these families do not receive any assistance with day-care costs. This "affordability problem":

- o causes financial hardship for many families;
- o causes others to settle for unstable or piecemeal child care arrangements;
- o forces some parents to remain at home who wish to work or continue their education;
- o causes loss of revenue to government, and increased social welfare expenditures;
- o increases the difficulty employers find in recruiting an adequate, stable workforce.

THE FINDINGS

The key findings include the following:

- o Approximately three out of five children under 13 years of age currently live in families where both parents are employed, or in a single-parent family and that parent is employed. That is a total of about 550,000 children.

- o The average child under age six years who does not have a non-working parent, spends a total of 21 hours per week in care.

- o Eighty-seven percent of young children in employed single-parent families and almost 75 percent of young children in two-worker families are regularly cared for by someone other than a parent.

- o Child care centers, including school-age programs, serve over 40 percent of children who are in non-parental care. This type of care is especially important to single parents; 51 percent of their children are cared for in center-based settings.

- o Forty percent of children under 13 years of age who are in non-parental care on a regular basis are cared for by relatives.

- o Family day care is used by 15 percent of all children in care. It is particularly important for infants and toddlers: 20 percent of all infants in care, and 23 percent of all toddlers in care are in family child care.

- o In families that use work adjustments as their primary method of child care, 60 percent of the mothers work part time.

- o There are no statistically significant differences among geographic regions in the proportion of children in non-parental care.

- o Half of Massachusetts' low income families pay ten percent or more of their gross income for child care; 39 percent pay 15 percent or more.

- o In FY 1987, approximately 17,500 children received child care through Department of Social Services day care contracts, with an additional 7,350 children served by Department of Welfare vouchers.

- o Total state government spending for all child care programs in FY 1987 was $101.1 million, an increase of 51 percent since FY 1985.

- o There are more than 59,000 children enrolled in licensed child care programs whose families have incomes below 71 percent of the state's median income, and 42 percent of them receive a state subsidy.

- o Over forty percent of the mothers not currently employed report that they would look for work or enter school or a job training program if satisfactory child care were available to them at a reasonable cost.

- o Of the more than 140,000 employers in Massachusetts, 107 were providing some form of child care assistance to their employees as of July 1987.

- o Massachusetts private foundations made about $1 million available for child care in 1986. Massachusetts United Ways are estimated to have given about $3 million in the same time period.

- o The federal tax credit is the largest single source of federal support for employment-related dependent care costs.

- o Labor costs constitute approximately 76 percent of the average child care center budget.

- o Capital subsidies should make it easier for providers to start programs and so increase the availability of child care; but our findings suggest they will not have much effect on the affordability problem, which is most closely related to operating costs.

- o In 1995, almost 670,000 Massachusetts children under thirteen years of age will have employed mothers. An estimated 250,000 children under six years of age, and an additional 161,000 children between the ages of six and twelve years, will need non-parental care in 1995 -- an increase of 23 percent in less than ten years.

- o Because of increased labor force participation, improved human capital, increased profits to business, and direct benefits to consumers, the benefits of helping families afford child care can far outweigh the costs.

CONCLUSION

The intent of this study is to provide a sound base for policy development and long-range planning. Used in conjunction with parallel plans to increase the availability and quality of the state's child care resources, the recommendations that grow out of this work will set a strong course for the future of child care in the Commonwealth.

Siobhan works for the Commonwealth. She is the single parent of two school-age children. Before she began receiving ASAP, she worked part-time. Because of the scholarship, she was able to afford care for her children after school five days a week. "I'm able to work full-time at a better paying job. I would not be able to afford day care without the scholarship." There have been emotional benefits as well: "I'm reassured because my children are in quality care."

Rachel works in a small local business. Although she works full time, she accrues no sick time and she must take unpaid personal leave when her five-year-old is sick. Before her name was selected in the ASAP lottery, her child spent two days a week in a day care center and three days with relatives. "I was going to take my child out of the center because I coudn't afford it. The scholarship allowed me to keep her in the center plus increase the time she spent there." Having a more secure arrangement, she stopped worrying about her daughter, and experienced less emotional stress. "Because I had secure day care arrangements, I've been more productive at work, able to take on more responsibility. As a result, I'm making more money."

INTRODUCTION

Under the auspices of the Affordability Task Force, the Massachusetts Office for Children and United Way of Massachusetts Bay commissioned this study to collect and analyze information about the extent of the child care affordability problem in Massachusetts, and to review and assess options for addressing the problem. Based on the results of this study, the Affordability Task Force will develop a long-range plan for closing the affordability gap. This plan, used in conjunction with associated plans to increase the supply and maintain the quality of child care in the state, will help insure a healthy, viable child care network for the Commonwealth's families in the 1990s and beyond.

The objectives of this study were:

- o quantify the current use of various forms of child care by Massachusetts families with children under 13 years of age;
- o identify regional differences, if any, in the use of child care;
- o estimate the need for child care services in 1995;
- o improve understanding of the costs of providing child care in Massachusetts;
- o determine the scope of the affordability problem in Massachusetts, and its impact on low and moderate income families;
- o review the resources available in Massachusetts which address the problem;
- o review options for addressing the problem;
- o illustrate the costs and benefits of policies to assist parents with child care costs, using three hypothetical examples.

To these ends, the researchers conducted a telephone survey of a random sample of 750 Massachusetts families with one or more children under the age of 13, during June of 1987. Respondents came from all over the state, and were generally representative of the state's population in terms of race, income, and the ages of their children. The study team also conducted telephone surveys of random samples of licensed family day care providers and day care centers.

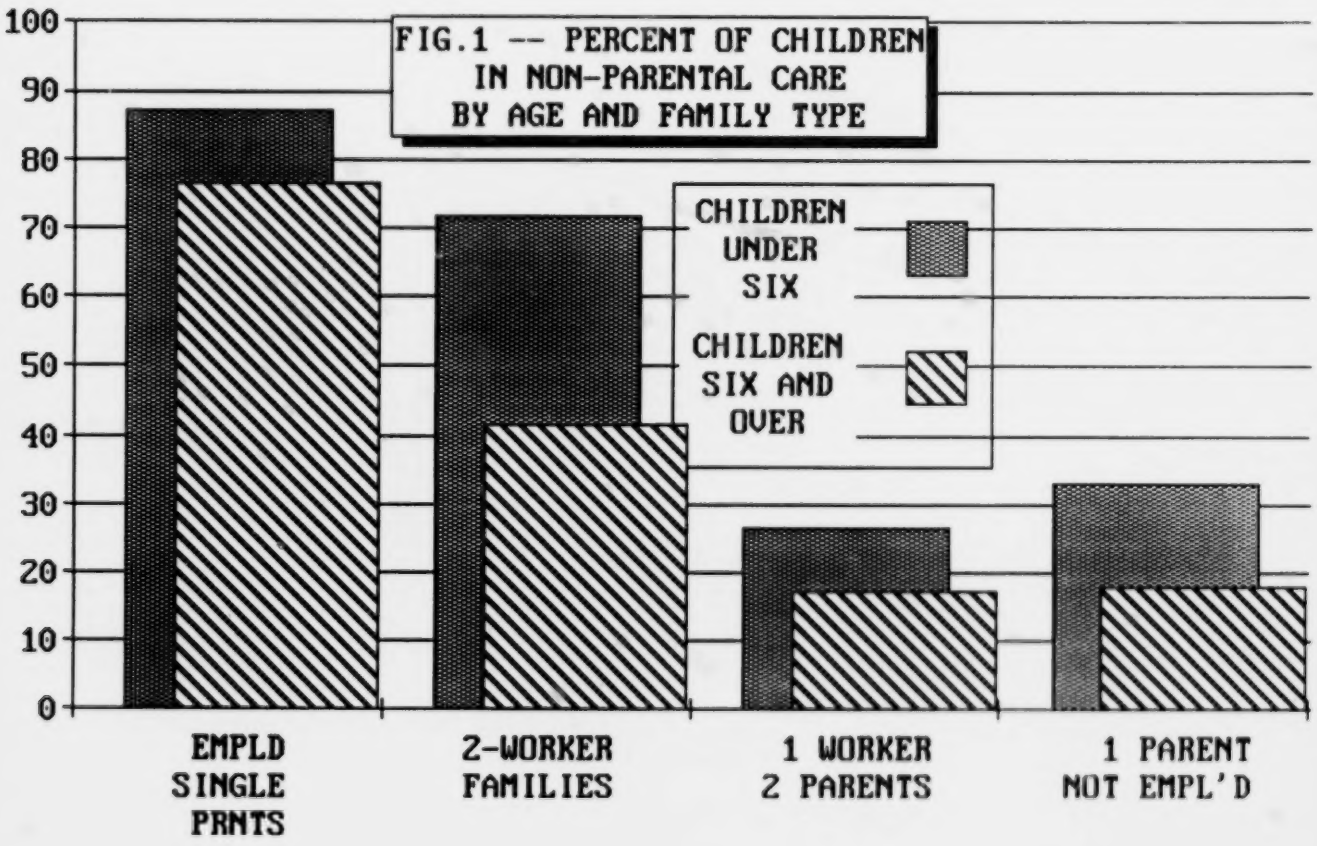
This report contains results and analysis of the three surveys, plus information gathered through discussions with child care experts, a review of the literature, and other sources.

Kate was not able to take advantage of the ASAP scholarship because her four-year-old's center was unwilling to accept the voucher. "I did not want to move my child to a different center. It would have been traumatic for him; he's happy with the center." Even though Kate works 40 hours a week as a computer operator, her child care bill eats up half of her salary. When asked how paying for child care affected her family's financial situation, she replied that it was "very difficult."

CHILD CARE IN MASSACHUSETTS

THE DEMAND FOR CHILD CARE

According to our survey of Massachusetts families, **approximately three out of five children under 13 currently live in families where both parents are employed, or they live in a single-parent family and that parent is employed. That is a total of about 550,000 children.** Some of these children are cared for exclusively by their parents, but about 335,000 Massachusetts children are currently in non-parental care because of parental employment. In addition, **over 40 percent of the mothers not currently employed report that they would look for work or enter school or a job training program if satisfactory child care were available to them at a reasonable cost:** these represent an **unmet** demand for care for an additional 51,000 families.

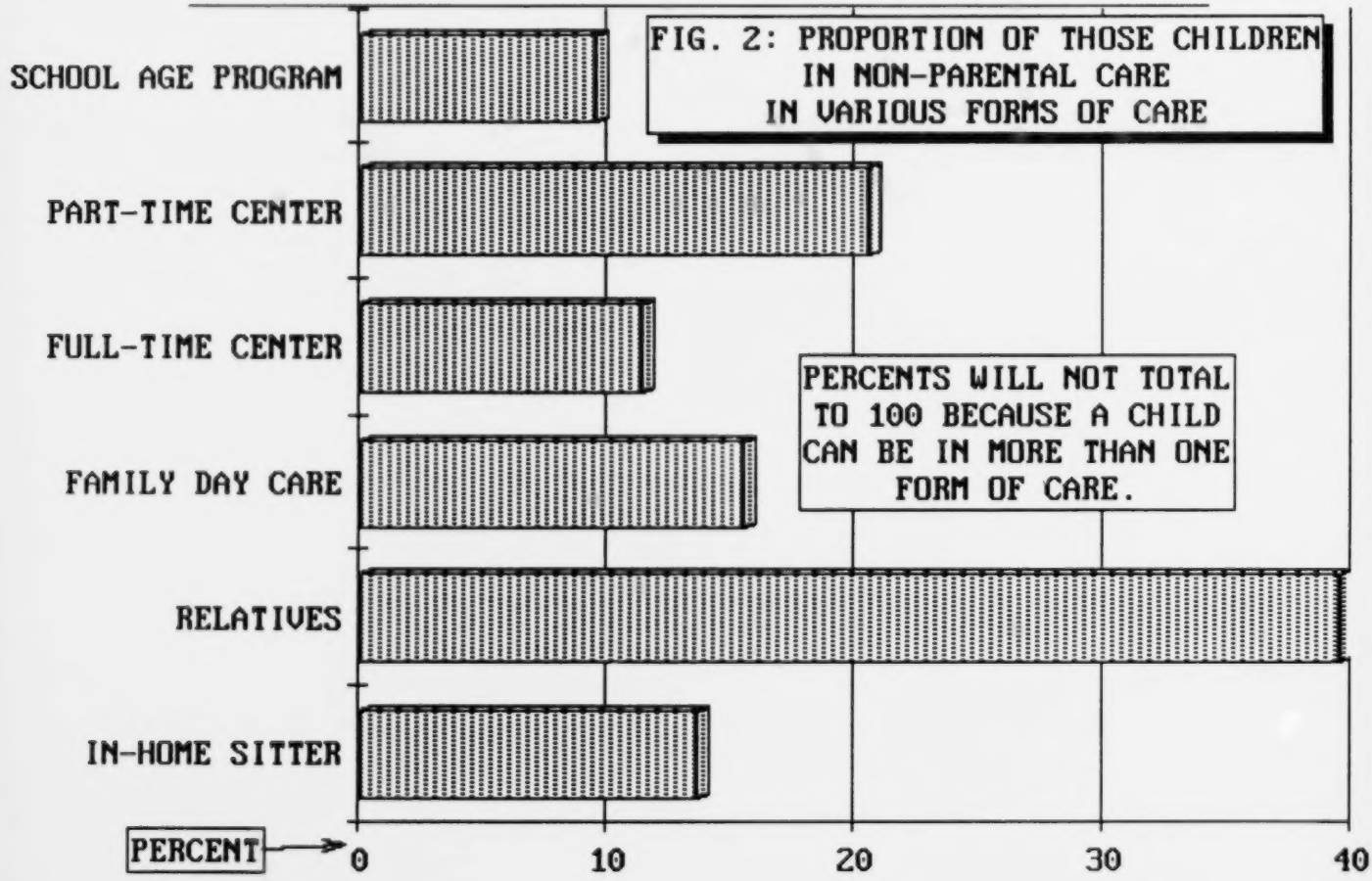


Current Child Care Arrangements

Parental Care: When parents must manage employment and child care without the help of others, they can delay employment until the youngest child is in school or older, which is not financially feasible for many families. Others arrange work schedules so that one parent is always available for child care. Over one-third of families in which both parents work arrange their work schedules to accommodate child care. **In families that use work adjustments as their primary method of child care, 60 percent of the mothers work part time.** Many of these mothers might prefer to work full time if satisfactory, affordable child care were available.

Non-parental Care: As we can see from Figure 1, **87 percent of young children in employed-single-mother families, and almost 75 percent of young children in two-worker families, are regularly cared for by someone other than a parent.** About 75 percent of older children in employed-single-parent families and 41 percent of older children in two-worker families are cared for by someone other than a parent when the child is not in school.

Of those families with a non-working parent that use child care, some are using care to facilitate parental education, and others use early childhood programs which they feel are good educational and social experiences for their children.



Relatives: Forty percent of children under 13 years of age who are in non-parental care on a regular basis are cared for by relatives (see Figure 2). Relative care is more than three times as likely to be used when children live in a home with older female relatives (their mother's mother or grandmother). Over half of all children in homes with older female relatives are cared for by a relative on a regular basis.

Relatives are not always available as care givers. The mobility of the population will continue to separate extended families, and the employment of women is rising, reducing the number of women at home to watch their relatives' children. In addition, relative care is not necessarily inexpensive care -- **25 percent of adult relatives are paid for their services, an average of $2.13/hour.**

Non-relative sitters: About 13 percent of children in regular care are cared for by non-relatives in the child's home. Babysitting by teenagers tends to be for short periods -- children in the care of a teenage babysitter are in her/his care for an average of eleven hours each week. When parents need care for more hours, they tend to use adults as sitters, and adult sitters who are not relatives are almost always paid. This is the most expensive form of care at over $4/hour on average.

TABLE 1: PROPORTION OF CHILDREN AT EACH AGE LEVEL IN VARIOUS FORMS OF CARE[1]

AGE GROUP[2] ->	INFANTS	TODDLERS	PRESCHOOL	5-8 YEARS	9-12 YEARS
TYPE OF CARE					
Center-based (Full time)	8%	21%	25%	4%	NA
Center-based (Part time)	8%	12%	41%	22%	NA
School-age[3]	NA	NA	NA	21%	14%
Family Day Care	20%	23%	13%	13%	10%
Babysitter in home	16%	14%	13%	14%	13%
Relative care	51%	29%	24%	37%	70%
Sample N	49	76	150	184	100

[1] Proportion of children using various forms of child care. Percents based on the number of children at this age who are in some form of child care. Percents do not add to 100 percent because children could be in more than one form of care.

[2] Infants are children 0 to 14 months old; toddlers are children 15 to 32 months old; preschoolers are children 33 to 59 months old.

[3] When parents of children six and older said their children were in "day care centers," we recoded their responses as school-age programs. Those children from the ages of five to eight shown in the table as being in center-based care are all five years of age.

Family Day care: As Fig. 2 shows, **family day care (by a non-relative) is used by 15 percent of all children in care**. Family Day care is particularly important for infants and toddlers: 20 percent of all infants in care, and 23 percent of all toddlers in care, are in family day care (see Table 1).

Center-based Care: Center-based care in one form or another is used by 43 percent of all children in care. It includes day care centers, nursery schools, extended day nursery schools, and extended day kindergarten programs. We have grouped center-based care into three categories: full time (for 25 hours a week or more); part time (for less than 25 hours a week); and school age care (for children ages six through 12, and five-year-olds in part time care who are not in nursery school and therefore, presumably, in kindergarten). Part time center-based care is often given in nursery schools, as is evident from the high percentage of pre-schoolers in part time center-based care. However, the child care market has become so complex that many nursery schools provide full-day care through extended day programs. In the following tables, children in these programs are included in full time center-based care. School age care includes both formal after-school and before-school programs, extended day kindergartens, and informal or recreational programs such as those sponsored by "Y"s.

Center-based care is especially important to employed single mothers -- 20 percent of their children in care are in full time center care, and an additional 11 percent are in part time care, with 20 percent in school-age care, for a total of 51%.

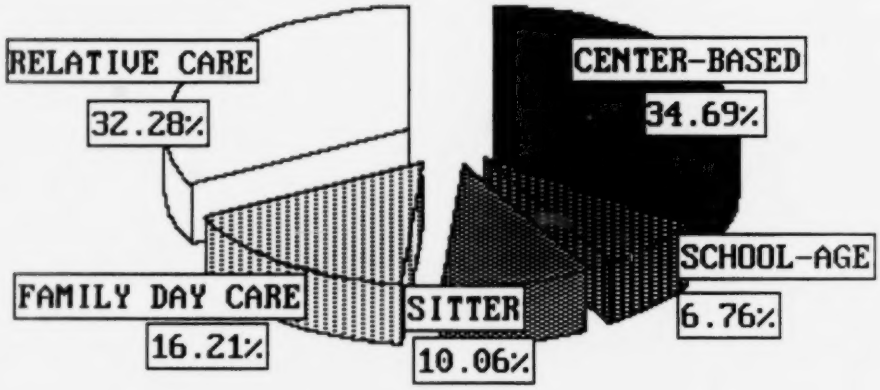
TABLE 2: PROPORTION OF CHILDREN IN VARIOUS FORMS OF CARE BY FAMILY CHARACTERISTICS[1]

TYPE OF CARE	EMPLOYED SINGLE PARENTS	TWO WORKER FAMILIES	ONE-WORKER AND TWO PARENTS	NOT EMPLOYED SINGLE PARENTS
Center-based (full time)	20%	10%	3%	14%
Center-based (Part time)	11%	16%	56%	18%
School Age	20%	7%	8%	5%
Family Day Care	16%	17%	5%	0%
Babysitter in Home	14%	14%	14%	5%
Relative Care	37%	45%	16%	68%
N of Children in care	123	316	87	22

[1]Percents based on number of children in care. Percents do not add to 100 percent because children could be in more than one form of care.

Child-hours of Care: Specifying the numbers of children in various forms of care does not adequately describe the market for child care, because different types of programs tend to provide differing **amounts** of care per child. Fig. 3 shows the proportion of total **hours of care** provided by the various forms of care. Note that **in terms of child-hours, day care centers are even more important than care by relatives.** Family day care has sometimes been viewed as constituting the bulk of the child care market, because there are more family day care providers than there are centers. But this form of care provides fewer hours of care than do centers.

FIG 3: TOTAL CHILD HOURS SPENT IN VARIOUS FORMS OF NON-PARENTAL CARE IN MASSACHUSETTS



Note: "Center-based care" includes nursery schools

Total Hours of Care per Child: Some families piece together care for their children from more than one source. The average hours in care per child for each form of care, therefore, understates the total number of hours per week the average child spends in non-parental care. Children in non-parental care spend a total, on average, of 27 hours per week in care. Children under six who do not have a non-working parent, including those who do not spend any time in non-parental care, spend an average of 21 hours per week in care. Furthermore, it should be kept in mind that the average hours per week children spend in care do not tell us anything about any individual child's **need** for care. Many children spend much more than the average number of hours in care: and some who spend 20 hours per week in care may actually need more than that, but their families cannot afford it or cannot make suitable arrangements.

Regional Differences: There are no statistically significant differences among Office for Children Regions in the proportion of children in non-parental care. However, children in western Massachusetts, including Springfield, and in Boston, are more likely to be in full time center-based care than are children in other parts of the state. Children in the western suburbs of Boston are more likely to be in the care of a non-relative sitter in the home. These differences may be attributable to regional differences in income and other family characteristics and to regional differences in the services available. For example, according to needs assessment data provided by the Massachusetts Department of Social Services, children in western Massachusetts and Boston are more likely to live in lower income and single parent families, who are more likely to be eligible for subsidies and who rely heavily on full time center-based care to facilitate employment. In contrast, children in Boston's western suburbs are the least likely to be in low income families.

THE PROJECTED NEED FOR CHILD CARE IN 1995

Massachusetts, and the rest of the nation, is experiencing an increase in the numbers of young children, as the large number of people born between 1946 and 1964 -- the "baby boomers" -- are now having children of their own. If current national trends continue, the number of children under the age of six will increase by four percent between 1985 and 1995. As the current boomlet ages, the number of school-age children will increase even more dramatically, by 15 percent in ten years.

According to provisional data from the Census Bureau, there were 927,000 children under the age of 13 living in Massachusetts in 1986. Table 3 shows the breakdown of numbers of children by the age of the child and the income bracket of the family. The income brackets are based on median family income, as adjusted for family size for use in the Massachusetts DSS sliding fee scale day care subsidy program. "Low income" families are defined as those with incomes below 71 percent of the adjusted median -- $20,592 per year for a family of four in 1987. "Moderate income" families are those with incomes between 71 percent and 135 percent of the median -- $39,684 for a family of four.

TABLE 3: FAMILY INCOME AND NUMBER OF CHILDREN

	<-------I N C O M E-------> LOW	MODERATE	HIGH	TOTAL
0 to 1 Year Old	41,076	58,813	63,481	163,370
2 to 3 Years Old	39,209	61,614	56,946	157,769
4 to 5 Years Old	50,411	74,683	41,076	166,170
6 to 8 Years Old	64,414	82,152	71,883	218,449
9 to 12 Years Old	61,614	83,085	76,550	221,249
All Children Under 13	256,724	360,347	309,936	927,007

According to our survey, about 54 percent of mothers of children under 13 are currently in the labor force. By 1995, the number of Massachusetts children under six will have increased by approximately four percent, and the number of children six to twelve by 15 percent, while, if Massachusetts follows national trends (see Hofferth & Phillips, 1987) we can expect the percentage of mothers in the labor force to increase to about 65 percent. In 1995, almost 670,000 Massachusetts children will have employed mothers. If we assume that the same proportion of families will be single parent families, and we assume that the proportion of families using non-parental care will remain the same in 1995 as it is in 1987, then **we would estimate that 250,000 children under six years of age, and 161,000 children between the ages of six and 12, will need non-parental care in 1995 -- an increase of 23 percent in less than ten years.** (See Tables 4 and 5.) These estimates are actually conservative, as the proportion of single-parent families is still increasing, and the maternal employment rate in Massachusetts is higher than the national average.

Alexis is an administrative assistant and the single parent of a six-year-old boy. ASAP helps pay the cost of her son's care before and after kindergarten. The scholarship allowed her to catch up on bills and helps with the grocery bill. It also lets her provide extras for her son: "If a special trip comes up at the center, my son can now participate." She doesn't know what she will do when ASAP ends. "I want him to stay in the same day care center, but I don't think I could afford it."

TABLE 4: ACTUAL AND PROJECTED NUMBER OF MASSACHUSETTS CHILDREN UNDER AGE 6 IN NON-PARENTAL CARE

	1986	1995
Total Under 6 With Employed Mothers	263,136	329,420
A. Single Parent Families		
Percentage of children	19%	19%
Number of children	49,998	62,590
Percentage in non parental care	87%	87%
Number in non-parental care	43,498	54,453
B. Two-Worker Families		
Percentage of children	81%	81%
Number of children	213,148	266,830
Percentage in non-parental care	73%	73%
Number in non-parental care	155,598	194,786
C. Total Children under 6 with employed mothers in non-parental care	199,096	249,239

TABLE 5: ACTUAL AND PROJECTED NUMBER OF MASSACHUSETTS CHILDREN BETWEEN 6 AND 12 IN NON-PARENTAL CARE

	1986	1995
Total Between 6 and 12 with employed mothers	281,406	338,567
A. Single Parent Families		
Percentage of children	20%	20%
Number of children	56,281	67,713
Percentage in non-parental care	74%	74%
Number in non-parental care	41,648	50,108
B. Two-Worker Families		
Percentage of children	80%	80%
Number of children	225,125	270,854
Percentage in non-parental care	41%	41%
Number in non-parental care	92,301	111,050
C. Total children 6 and over with employed mothers in non-parental care	133,949	161,158

THE SUPPLY OF CHILD CARE

The Characteristics of Child Care Programs

Center-based Care: According to our survey of centers, the average center has 51 children attending. While there are relatively few centers compared to other providers, centers provide more child hours of care than any other type of provider.

Ninety-four percent of centers serve preschoolers and almost 42 percent serve toddlers. Only 20 percent serve infants, and 20 percent serve kindergarteners. Fourteen percent of surveyed centers also provide care for school age children.

The average center has seven full time staff and three part time staff. **Labor costs constitute approximately 76 percent of the budget, even though the average teacher's salary in a center with a Department of Social Services contract was $14,175 in 1987.**

School Age Programs: These programs provide care for school-age children before or after school hours. In our survey, we included any regular activities for school-age children, such as recreational programs at YMCAs, or after-school sports programs. Also, we counted as school-age care most hours spent in care by children age five or over which parents reported as time in day care centers. School-age programs provide an average of 13 hours per week of care to about 52,300 children throughout the state.

Licensed Family Day care: The typical licensed family day care setting provides care for five children, for an average of 22 hours of care each week per child. The average family day care provider cares for one child under the age of two, three preschoolers and one school age child. The provider has eight years of experience in child care, including experience as a parent, and a high school education. She has two children of her own, one of whom is at home during the day.

Overall, 58 percent of licensed family day care providers care for preschoolers, 28 percent care for children under the age of two, and 14 percent care for school age children.

Unlicensed Family Day care: We were not able to survey unlicensed family day care providers directly, but we know something about them from the parent survey. According to parents, the average unlicensed family day care provider cares for four children, including her own. A child in unlicensed family day care spends an average of 22 hours per week in care.

Adult Relative Care: According to the parent survey, the typical adult relative provides an average of 17 hours of care per child per week; only one out of four are paid. According to our survey, about 18 percent of children in relative care are cared for by a relative who is watching more than five other children as well.

Adult Sitters in the Home: The typical adult sitter provides an average of 20 hours of care per child per week. Almost all adult sitters care for one or two children at a time.

The Determinants of Providers' Costs

Here, we are not examining the **fees** charged to parents, but the actual **costs** faced by providers: fees can be less than costs because parents often receive subsidies.

Centers: We found that the cost of providing day care will be higher if there is a higher staff/child ratio, that is if the number of hours the providers spend in the classroom per child hour, weighted for the age of the child, is higher. The proportion of toddlers, the proportion of children receiving subsidies through the Department of Social Services (DSS), the proportion of special needs children, and the wage rate are also associated with higher costs.

Costs are higher in centers which pay no rent, or where parents provide food. Obviously, this does not mean that these factors **cause** costs to be higher. It may be, for example, that centers receiving free rent tend to provide higher quality care.

Center costs and the number of hours of child care provided annually are related in a complex way. Estimated costs per child hour range from $2.15 for a small center providing only 40,000 child hours per year to a low of $1.84 for a center providing approximately 80,000 child-hours of care per year. For centers providing more than approximately 80,000 child hours per year, costs rise. A center providing 200,000 child hours per year will have average costs per child hour of approximately $2.30. (These figures refer to the average for all ages: infant/toddler care is more expensive.) There are factors other than size that affect cost, and this analysis does not demonstrate that there is an "ideal size" for centers.

Licensed Family Day care: It is much more difficult to study the costs of family day care than it is to study these matters for centers. Family day care is often informally organized and there is seldom a pre-established budget. In addition, since care takes place in the home of the provider, it is difficult to separate those costs attributable solely to day care production from those which would exist even without it.

It was not possible to sort out labor and capital payments from profit/loss, so we do not have a direct measure of either capital or labor costs. The solution to the problem of the determinants of family day care providers' costs must await further research.

We were able to estimate what providers could expect to pay in start-up costs to begin a family day care operation today. We calculated that an average family day care provider's fixed start-up costs are approximately $830 in 1987 dollars, although they vary widely.

THE SCOPE OF THE AFFORDABILITY PROBLEM

The Price of Care

In the previous section, we discussed what it actually costs to provide care. In this section, we discuss the fees parents pay -- the price of care. The important distinction between these two variables should be kept in mind -- parents who receive subsidies pay less for care than do other parents. Because care is priced in different ways, we talk about prices in terms of the price per hour of care per child, or unit price.

Table 6 shows the fees paid for various types of care by those parents who are paying something, and who do not say they receive any form of subsidy or assistance with child care costs. Many parents, apparently, receive subsidies but are not aware of it: some who said they did not receive a subsidy reported paying as little as 15 cents an hour for center-based care. Consequently, the figures given in Table 6 undoubtedly understate the true cost of care for parents who do not have access to subsidy or scholarship programs.

Table 6 reports both the average price, and the median price. The parents of half of the children pay less than the median price and the parents of half of the children pay more than the median price.

Most of the differences in hourly fees are not statistically significant. However, care by a non-relative in the home is the most expensive form of care -- an average of $4.18 per hour per child for adult caregivers. Teenage sitters cost much less -- an average of $1.94 per hour -- but are unlikely to provide many hours of care per week.

If parents with subsidies are included, the price is significantly less for full time center-based care -- an average of $1.56 per hour per child. This is because parents of one third of the children in full time center-based care say they receive subsidies: 12 percent are in DSS contracted care, and the remaining 21 percent receive scholarships or subsidies from the center or some other source, including vouchers received from the Commonwealth's ET Choices program to help AFDC recipients enter paid employment. Finally, note that infant/toddler care is much more expensive than the average for all center-based care: for parents who say they do not receive a subsidy, the average cost for center-based infant and toddler care is $2.93/hr.

Table 6 also calculates the annual cost for a child in care at the average fee. As we can see, full time care can cost a family between $5000 and $10,000 depending on the type of care. Families without subsidies will normally pay more than $7,000 per year for full time infant or toddler care, 50 hours per week.

TABLE 6: CHILD CARE FEES FOR PARENTS WHO DO NOT SAY THEY RECEIVE SUBSIDIES

	# CHILDREN[1]	AVERAGE FEE/HR	MEDIAN FEE/HR	AVERAGE COST/ YEAR[2]
Center-based (Full time)	40	$2.03	$1.77	$ 5075
Center-based (Part time)	92	$2.46	$2.14	$ 3075
Family Day care	80	$2.16	$2.00	$ 5400
Adult Sitter in home	38	$4.18	$2.76	$10450
Adult Relative	50	$2.13	$1.59	$ 5325
Unsubsidized Center-based Infant/toddler care	20	$2.93	$2.64	$ 7325

[1]Number in paid care for whom we have price information.
[2]Annual fee for full time care, assuming average hourly fee, 50 hours of care each week, for 50 weeks a year. For part time center-based care, we assumed only 25 hours of care each week.

Because of the availability of subsidies, many families do pay less than these amounts. Furthermore, the average child is in care for only about 25 hours a week. Table 7 shows the actual distribution of child care expenditures, by family income classification. The average family with a child in care is actually spending about $3,000/year, but one quarter of all families spend more than $3,900 on an annualized basis. One quarter of low-income families, Table 7 shows, spend more than $3,500 per year, clearly a substantial burden for them.

TABLE 7: FAMILY EXPENDITURES FOR CHILD CARE[1]

	AVERAGE WEEKLY $ SPENT	PERCENTILE OF ALL FAMILIES		
		25TH	50TH	75TH
ALL FAMILIES:	$58.71	$19	$40	$75
BY INCOME[2]:				
LOW INCOME	$47.78	$13	$33.50	$67.25
MODERATE	$45.32	$17	$30	$65
ABOVE MODERATE	$70.73	$26.50	$50	$87

[1]For those paying for child care.
[2]Families were considered "Low Income" if their gross annual income was between 0 percent and 70 percent of the median income adjusted for family size. Families were considered "Moderate Income" if their gross annual income was between 70 percent and 135 percent of the state median income adjusted for family size.

It is widely accepted in the field that moderate income families can afford to pay no more than ten percent of their gross family income for child care. Similarly, a survey by the Child Care Information Exchange found that, nationally, providers using sliding fee scales generally charge parents between nine percent and eleven percent; the consistency of that figure suggests that this is the price at which parents will use care rather than forego it. A study done in Massachusetts (Dubnoff, 1986) found that low income families could afford to pay only six to seven percent of their income for child care.

Our survey is consistent with these other studies. Families pay an average of nine percent of their gross annual income for child care. While parents will pay this when they need child care to work or pursue their education, that does not demonstrate that a ten percent standard of "affordability" is the correct one. The ten percent standard is based on defining "affordability" as the price the market will bear. It could be argued that for low and moderate income families, ten percent may well be too much, considering the burden it places on them.

Even using this conservative standard, as Table 8 shows, many families pay much more. **Half of Massachusetts' low income families pay ten percent or more of their gross income; 39 percent of low income families pay 15 percent or more.** Moderate income families pay an average of 8 percent of their gross income; however, 13 percent of moderate income families pay 15 percent or more of their income for child care. These are families for whom child care is clearly not affordable. Keep in mind also that these figures include families who receive subsidies, and those who purchase only part time care. **Using the ten percent standard, a family would need an income of at least $50,000 a year before full time, unsubsidized care for just one child were "affordable".**

TABLE 8: PROPORTION OF FAMILY INCOME SPENT ON CHILD CARE[1]

	NUMBER OF FAMILIES[2]	AVERAGE	MEDIAN	% PAYING 15% OR MORE
ALL FAMILIES:	276	9%	6%	16%
BY INCOME:				
LOW INCOME	64	16%	10%	39%
MODERATE	91	8%	6%	13%
ABOVE MODERATE	121	6%	5%	5%

[1]For those paying for care.
[2]Number of families in the sample for whom we have data on income and expenditure for child care.

RESOURCES FOR CHILD CARE

Public Resources

Massachusetts currently supports child care through two major allocations: contracted care provided through the Department of Social Services, and voucher day care through the Department of Public Welfare's Employment and Training Program. In FY 1987, approximately 17,500 children received child care through Department of Social Services day care contracts, and an additional 7,350 children were covered by Department of Public Welfare vouchers.

Total state government spending for all day care programs in FY 1987 was $101.1 million, an increase of 51 percent since FY 1985. The state also funds early childhood programs through the Department of Education (Chapter 188) and through state contributions to the federally funded Head Start programs. However, very few Chapter 188 and Head-Start programs operate full-day and full-year, so they do not do very much to solve the child care problems of working parents. Fig. 4 shows the total state expenditures for each of these programs since 1985.

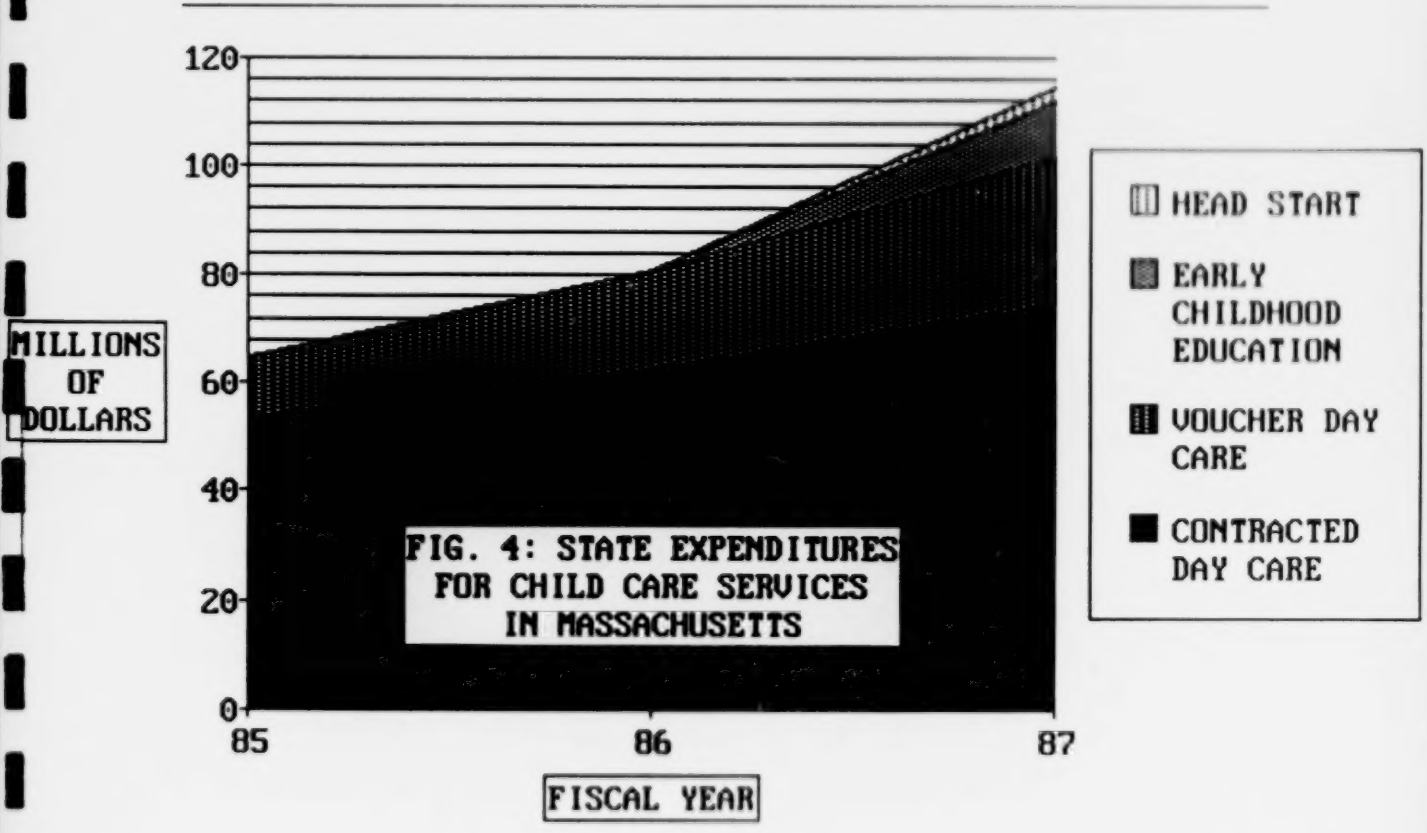


FIG. 4: STATE EXPENDITURES FOR CHILD CARE SERVICES IN MASSACHUSETTS

Additional state support for child care is provided through the Office for Children's day care licensing function and the statewide network of Child Care Resource and Referral Agencies (CCR&Rs). Limited funding has also been available to the Executive Office of Economic Affairs for encouraging corporate involvement in child care, to the Department of Capital Planning Operations to develop day care centers in public buildings, and to the Executive Office of Communities and Development for the construction and renovation of space for child care in public housing projects.

The state also supports training of child care workers, providing ongoing support to staff and opportunities for those lacking qualifications to meet the licensing requirements, through workshops, conferences, seminars, and college credit courses.

Cities are becoming more involved in meeting child care needs, through research, provision of free space, public school programs, and other activities. Community Development Block Grants from the federal government are used by some cities to subsidize care for children in low income families.

Employers

According to the Executive Office of Economic Affairs, of the more than 140,000 Massachusetts employers, **107 were providing some form of child care assistance to their employees as of July 1987**. Sixty-three percent of these employers were located in the metropolitan Boston area. Employer assistance can take many forms, including:

Resource and Referral: Thirty six Massachusetts employers currently offer assistance locating existing child care. Many companies contract with local Child Care Resource and Referral (CCR&R) agencies to provide this service to their employees.

Dependent Care Assistance Plan: A plan that sets aside up to $5,000 from an employee's salary that the employee can spend for child care or other dependent care, avoiding income taxes on that money.

Flexible Benefits: Flexible or "cafeteria" benefit plans allow employees to choose from a variety of options to put together a plan that best meets their family's needs. Such plans might include choices among health insurance, vacation time, life insurance, child care subsidies, tuition assistance, etc.

Reimbursement: Companies may choose to reimburse for all forms of child care, or only for certain forms, such as center-based care and licensed family day care.

Direct Service: Companies directly provide child care in one of three ways: (1) a day care center for employees located at or near the worksite; (2) "slots" or places reserved or subsidized in a community day care center or a system of family day care homes; or (3) summer day care for school-age children.

Sick Child Care Program: A child care program to which parents can, under certain circumstances, bring a child who is mildly ill.

Charitable Contribution: Employers can make charitable contributions to existing child care programs or to promote the development of new programs.

Charitable Foundations

Foundations are another important source of funding for child care in Massachusetts. Thirty-three Massachusetts foundations are listed in the Directory of Massachusetts Foundations as supporting day care or preschool programs. We were able to get information from 18 of these.

Foundations provided information on amounts of grants for different time periods. If we assume that those foundations that had funded child care in 1985 funded child care in 1986 at the same level, and that other foundations not included in our survey also provided funding for child care programs, **we can estimate that Massachusetts private foundations made about $1 million available for child care in 1986.**

Over the last three or four years, over half of philanthropic child care funding has gone for summer child care, in the form of summer "camps" (which include city-based day camps as well as the traditional resident camping programs in the country.) The greatest portion of this funding for summer care was in the form of "campership" -- scholarships for children to attend summer camps. Another substantial portion of funding for summer care was for capital expenses at summer programs.

Grants for capital expenses were the most common type received by child care providers other than summer camps, followed by funding for equipment purchases; very little funding was provided for scholarships for children at day care centers or in family day care. Philanthropies also provided labor subsidies in the form of paying all or part of a specific staff member's salary, and awarded grants for provider training as well.

A listing of foundation support for child care appears in the appendix.

United Ways

There are 27 United Ways in Massachusetts that pay dues to United Way of America. Of these, United Way of Massachusetts Bay, which covers Boston and 80 surrounding cities and towns, is by far the largest. Massachusetts United Ways reported $45,111,308 in allocations in 1986, with United Way of Massachusetts Bay accounting for over $33 million of that amount.

Child care is an important priority for most United Ways in Massachusetts. In 1987, United Ways gave $1.6 million to day care agencies in the state. The amount of United Way money going to support child care was actually greater, as many multi-service agencies and community centers supported by United Ways also have day care programs. United Way of Massachusetts Bay estimates that about $2 million of its 1986 allocations went to child care programs. If other Massachusetts United Ways have followed similar funding patterns, **a total of nearly $3 million in United Way funds went to support child care in 1987.**

Maria is a single mother whose four-year-old was chosen to receive ASAP. Although her child attends a center on the premises of her job, Maria had to work two jobs to make ends meet. Because of the ASAP scholarship, she was able to quit her second job. She reported that it has made a big difference in her financial situation, freeing up money for groceries and clothes. She thanked us: "Because I was able to quit my second job, I am able to spend more time with my children."

ADDRESSING THE AFFORDABILITY ISSUE

There are many ways to increase the availability of affordable, quality child care. These can be divided into those that reduce the burden on parents, and those that reduce the costs to providers. In this report we have covered only those options that address the issue of affordability. However, when discussing affordability we must remain cognizant of its place in the child care "trilemma". The term was coined by Gwen Morgan of Wheelock College. The trilemma refers to the intricate interlocking of the three elements involved in creating a viable child care network: wages, quality and affordability. The trilemma is that we cannot change one of these three elements without affecting the others. If we increase wages to attract and retain qualified staff and maintain a high standard of service, we drive up the costs of care beyond a family's ability to pay. If we keep the cost to parents low by holding back wage increases, centers experience a high rate of staff turnover which endangers program quality. Staff-child ratios must also satisfy licensing standards, which makes it impossible to escape the relationship between wages and costs.

REDUCING THE BURDEN ON PARENTS

Policies can help parents solve the problem of child care in two ways: by lowering the effective price to parents of non-parental care (market options) and by making it easier for parents to provide care themselves (non-market options).

Market Options

Direct Subsidy Programs: Subsidy programs take two forms: (1) subsidies are paid directly to providers who then provide care to eligible families; or (2) subsidies are given to individual parents.

Such subsidy programs can be funded by federal or state government, employers, philanthropic organizations, or a combination of sources. Government-funded subsidy programs are widespread; almost all states, including Massachusetts, have them, although some are limited to abused and neglected children only. Many employers also subsidize parents' child care expenses, including, in Massachusetts, Polaroid, Abt Associates, Computervision, and Zayre Corporation.

Income Tax Benefits: The federal tax credit is the largest single source of federal support for employment-related dependent care costs. In 1984, the most recent year for which data are available, more than 7.5 million taxpayers claimed the credit and received over $2.6 billion in tax benefits. The largest proportion of tax benefit, 49 percent, goes to families with adjusted gross incomes under $25,000.

The federal credit allows taxpayers who have employment-related expenses for the care of a child under the age of 15, or for the care of other dependents who are incapable of

self-care, to set off a percentage of these expenses against their federal income tax liability. The amount of the credit that may be claimed is determined by the amount of the taxpayer's expenses and the taxpayer's adjusted gross income (AGI). Eligible expenses may not exceed $2,400 for one dependent or $4,800 for two or more dependents. The credit is targeted to provide the greatest benefit to low income taxpayers. Taxpayers with AGIs of $10,000 or less are eligible for a credit equal to 30 percent of the qualifying expenses, while taxpayers with AGIs over $28,000 are eligible for a credit equal to 20 percent of their qualifying expenses. Between $10,000 and $28,000 AGI, the applicable percentage declines by one percentage point for each $2,000 increase in AGI.

States provide income tax benefits for child care in two forms: tax deductions and tax credits. A tax deduction means that families deduct all or part of their child care expenses from their taxable income, while a tax credit allows them to subtract a portion of the expense directly from the amount of their tax liability. In general, tax credits are more beneficial than tax deductions. A tax credit of $100 reduces taxes paid by $100, while a tax deduction of $100 reduces taxes only by the marginal tax rate on the taxpayer's last $100 of income -- in Massachusetts, only $5.

Twenty-eight states and the District of Columbia have dependent care tax provisions. Twenty-one of these use tax credits, eight use tax deductions. Five of the eight tax deduction states, including Massachusetts, permit deductions equivalent to the amounts per child which can be claimed on the federal dependent care tax credit.

Massachusetts tax deductions are available at all income levels and do not have a sliding scale. Families at all income levels are restricted to claiming $120 for one dependent, or a maximum of $240 for two or more dependents. In states which pattern their dependent care tax provisions on the federal tax credit, such as Massachusetts, lower income families receive proportionally more tax relief than higher income families and, in several states, credits or deductions usually phase out entirely at quite low income levels. Six of the 29 states target their provisions to lower income families only.

A refundable tax credit allows families whose credit exceeds their tax liability to actually collect a payment -- a "negative tax". In contrast, a non-refundable tax credit, such as the current federal credit, is lost to low-income families who have no tax liability. In states which peg their dependent care provisions to the federal credit, such families also lose the state benefit. Of the 21 states with dependent care tax credits, only three have refundable tax credits: Minnesota, New Mexico, and Alaska. In Minnesota a taxpayer may receive as much as $720 per dependent, up to a total of $1,440, for a family with an AGI of under $10,000. The tax credit phases out entirely for taxpayers with an AGI above $24,000. The Massachusetts constitution, however, may prohibit refundable tax credits.

Dependent Care Assistance Plans: Another tax-related mechanism to subsidize the price of child care is the Dependent Care Assistance Plan (DCAP). Employees shelter up to $5,000 of their pay from taxes by having it put aside in a special untaxed account from which the employee is reimbursed for child care expenses throughout the year. The employer also benefits by not having to provide the seven percent in FICA taxes and other mandated fringe benefits on that amount. While this plan is an important mechanism of support for families in higher tax brackets, it rarely would help a family that makes less than $20,000 a year.

AFDC Income Disregard: Some states allow working families that receive AFDC to "disregard" their expenses for work-related child care. This means that they pay their own

child care costs directly to the provider and the state will then deduct (disregard) up to $160 per month per child from their income when computing their AFDC benefits.

The AFDC income disregard is of limited usefulness. Care may cost much more than the $160/month limit, while in many states the AFDC earned income amount is so low that anyone who is able to pay up to $160/month for child care probably would not be eligible for AFDC anyway. In Massachusetts, however, AFDC recipients who are working, seeking employment, or in a training program, can receive child care subsidies in the form of vouchers, through the ET Choices program.

Preschool Education in Public Schools: Traditionally, pre-school education has not been designed to address the need for affordable child care for working parents: pre-school programs typically operate only part-day and part-year.

Preschool education has risen higher on the agenda of a number of states in the past seven years. State investment in early childhood education has taken three forms:

- o eight states, including Massachusetts, plus the District of Columbia, contribute funds for the Head Start match or provide additional revenues to expand the number of children served by the Head Start program, and/or to improve the quality of services;
- o two states, Missouri and Minnesota, provide parent education programs in lieu of direct service to pre-kindergarten children;
- o 23 states plus the District of Columbia provide funds for pilot or state-wide pre-kindergarten programs.

Two thirds of the state pre-kindergarten programs are targeted to children "at risk" due to low-income status or other conditions. The majority of state pre-kindergarten programs are half-day programs; only four states, including Massachusetts, permit children to be served for the full working day. Sixteen Massachusetts communities (out of 128 in the state) offer full-day child care using their state grants for pre-kindergarten programs (Chapter 188 grants).

While high quality early childhood education is an important goal for Massachusetts, if preschool education programs are to also meet the state's need for child care, they must be structured to provide enough hours to help parents who work full time.

<u>Support for Non-Market Care</u>

Another way in which the burden of paying for child care can be reduced for parents is through options which provide support for non-market care -- that is, for care by the parents. Some of the areas in which non-market care may often be chosen are: care of newborns, temporary care of sick children, doctor's visits, meetings with children's teachers, and other responsibilities that parents do not want to turn over to professionals. However, non-market options generally apply only to temporary situations and specific purposes, given the rising importance of women's labor to the family and the economy.

Parental Leave: The U.S. lags far behind other nations in parental leave policies. More than 100 countries provide job-protected maternity leave with some wage replacement. In Sweden, either parent may take up to 40 weeks parental leave at full pay. Ninety percent is covered by social insurance, and ten percent by the employer. An additional 12 weeks may be taken at a pre-set flat rate.

In France, mothers may take 16 weeks at full pay, up to a maximum covered by social security, for their first two children. They may take up to six months for any additional

children. Either parent may take up to two years unpaid parental leave, with their job held, if their company has more than 100 employees. West Germany and Canada have comparable policies (Kamerman, 1986).

In contrast, the only U.S. law covering parental leave is the Pregnancy Discrimination Act of 1978, that requires companies providing temporary disability insurance to their employees to provide benefits to pregnant women. Fewer than 40 percent of working women are covered by such plans: average paid maternity leave is six to eight weeks.

Leave for Sick Child Care: Parents lose an estimated average of eight working days per year to care for their sick children. A 1986 survey found that only half of all companies allow sick or personal leave to be used to care for a sick child.

REDUCING THE COST TO PROVIDERS

Capital Subsidies

Our survey found that capital subsidies are not related to lower costs. This is because labor costs are a much larger percentage of day care providers' budgets, and, we hypothesize, because capital subsidies may apply disproportionately to small centers that operate at relatively high cost for other reasons. Nevertheless, many other authors have proposed capital subsidies as a means of lowering the cost of day care. **Capital subsidies should have the beneficial effect of lowering barriers to entry for providers, and increasing the availability of day care, but our findings suggest they will not have much effect on the affordability problem, which is most closely related to operating costs.** Unlike direct subsidies, capital subsidies cannot be effectively targeted to low-income families.

Low Rent/No Rent for Providers: Many child care programs are located in non-profit organizations such as universities, religious institutions, and social service agencies which provide free space or charge below-market rents. It is not clear that there are policies available which would increase the availability of such privately subsidized spaces.

However, there are other possibilities. The Massachusetts Division of Capital Planning and Operations requires a day care needs assessment for all new state construction or major renovation. The Executive Office of Communities and Development has made funds available to start up day care in or near public housing. Local government and the public schools can also provide child care space in new or renovated buildings.

Finally, employers can provide on-site or nearby child care centers. Many Massachusetts corporations do so, including Stride-Rite; Hill, Holliday, Connors, Cosmopoulos, Inc.; and Berkshire Life Insurance.

Linkage Laws: These laws connect new development to the expansion of child care by requiring developers to provide space for on-site child care centers or pay into a fund for expansion of child care services.

Grants for Capital Expenditures: The Massachusetts Constitution prohibits the state from making capital grants to private corporations. However, in 1986, New England Telephone Co. awarded $250,000 to 15 non-profit day care agencies to help pay for capital improvements. The company has allocated a total of $750,000 over three years for such grants.

Loans to Providers: Child care providers often are unable to borrow from conventional sources, or must pay high interest because they are regarded as risky ventures. A loan guarantee program can address this problem. In Maryland, such a program is administered by the Department of Economic and Community Development. The state will guarantee up to 80 percent of a loan offered to a qualified provider. Applications are judged based on community need, geographic distribution, and preference for lower-income communities.

The Massachusetts Industrial Finance Agency (MIFA), which issues the state's industrial revenue bonds, set up a $750,000 pilot loan fund for the development, renovation or construction of worksite child care programs. To date, two centers have been completed with assistance from this fund.

Technical Assistance for Start-up and Program Enhancement: Steps have been taken in two states to facilitate start-up. North Carolina appropriated $700,000 for a two-year project (1979-81) to develop, upgrade and expand resources. The project funded 126 child care programs, with grants ranging from $1,500 to $25,000, and mobilized private and public agencies and citizens to plan for day care needs. Grantees included 51 new programs and 75 program expansions or improvements, representing a total of 2,525 new child care slots. The project also funded county departments of social services to encourage the development of family day care homes and individual child care arrangements through the purchase of equipment and toys for lending libraries.

In California, the BankAmerica Foundation provided leadership for a recruitment and training initiative which was intended to increase the supply and enhance the quality of child care. The Initiative was funded for two years with $700,000 from public and private sources, and administered through the California Child Care Resource and Referral Network. Six pilot projects were funded in the first year, generating over 1,100 child care spaces in 231 newly licensed family day care homes, and five new school age programs in over 20 cities. By the end of the first year, the projects had trained more than 1,200 potential, new and existing child care providers.

In Massachusetts, state revenues provide $1.8 million in base funding to a network of 12 community-based child care resource and referral (CCR&R) agencies. Implemented in FY '85 by the Massachusetts Office for Children with four programs, the network now features 21 offices statewide, and serves all of the Commonwealth's 357 towns and cities. As of the end of 1987, the agencies in OFC's CCR&R program have helped more than 40,000 individuals find child care. In addition, CCR&R staff have responded to more than 8,600 requests from businesses and child care providers across the state for assistance in designing child care benefit programs for employees, opening and expanding child care programs, or enhancing existing services.

Labor Subsidy

Labor is the largest single cost for providers. At the same time, child care workers are not well paid. Program administrators are in a dilemma, wanting to provide affordable care, but wanting to provide quality care as well, which requires a trained, stable staff and, in turn, competitive wages. A program that offered wage grants to licensed non-profit programs, and tax breaks to lower labor costs of for-profit programs, could help solve this dilemma, but we know of no model efforts in this area.

Sherrillyn and Willy have two children, ten and four years of age. Sherrillyn works 24 hours a week as a store clerk; Willy works full time in retail sales. On the three days that she works, the four-year-old goes to an unlicensed sitter. Because the sitter was unlicensed they were unable to accept the scholarship. Although Sherrillyn described their financial situation as manageable, they are unable to afford any care for the ten-year-old on the days when Sherrillyn is away from home after school.

BENEFITS OF PROVIDING AFFORDABLE CHILD CARE

CHILD CARE IS IMPORTANT TO THE COMMONWEALTH

The availability of affordable child care is important to the economic well-being of Massachusetts in several ways, including:

- o As affordable child care enables parents to enter the labor force, the state benefits from increased tax revenues and reduced public welfare dependency;
- o As affordable, quality child care contributes to lower rates of delinquency, crime and adolescent pregnancy, and reduces the need for special education services, state and local government benefit from lower costs for the criminal justice system, government-funded social services, and special education services;
- o Child care is necessary to recruit and maintain a stable, well-qualified and productive labor force, thereby contributing to the recruitment of business and industry;
- o As affordable child care enables parents to continue their education, the state benefits from increased human capital, which contributes to the state's ability to attract businesses and provides increased tax revenues and reduced public welfare dependency.

Increased Labor Force Participation: Several studies have indicated that the availability of affordable child care leads to greater labor force participation by mothers, which in turn contributes to greater tax revenues and reduced welfare dependency. Blau and Robins (1986) found that unemployed women in areas with higher child care costs were less likely to enter the labor force than were women in areas with lower child care costs. Conversely, employed women in areas with higher child care costs were more likely to leave employment than were women in areas with lower costs.

In a study done in the late 1970's, 17 percent of unemployed mothers with children under five said they would look for work if satisfactory, affordable child care were available; 16 percent of employed mothers said they would increase the number of hours they were employed (Presser & Baldwin, 1980). A 1983 study by the U.S. Bureau of the Census reports that 21 percent of part time employed mothers would increase their labor force participation and 26 percent of women who were not in the labor force would look for work if child care were available at a reasonable cost. Another recent survey by the Census Bureau found that 45 percent of the single mothers surveyed would work if they had adequate, affordable child care (Blank & Wilkins, 1985). **In Massachusetts, according to our survey, 41 percent of parents not now employed, who have a child under the age of**

13, say they would look for work if satisfactory child care were available at a reasonable cost.

A study of families terminated from subsidized care because of New York City's fiscal problems found that families who were able to keep their subsidized care were more likely to become self-sufficient than those not receiving subsidized care (McMurray & Kazanjian, 1982).

In an evaluation of the Massachusetts Voucher Day Care Project, Gray and colleagues (1984) found that the affordability of voucher day care was one of the major benefits reported by participants. In testimony before the Select Committee on Children, Youth and Families, the Director of the Voucher Day care Project, reported that child care assistance has enabled more women with very young children to participate in the Employment and Training (ET) program. In 1984, when the ET program first started, only 18 percent of participants had a child under six; in 1987, with the expansion of child care funds, 41 percent of participants had a child under six. In a study of contracted care in Massachusetts, Dubnoff (1986) found that more than half of current users of contracted care provided by the Department of Social Services felt that they were "very likely" to stop working or going to school if their child care became too expensive.

TABLE 9: TAX REVENUES TO STATE FROM INCREASED LABOR FORCE PARTICIPATION

31 percent of not employed mothers of children under age 13 enter the labor force:

Estimated number of not employed mothers:	165,189
	x .31
Number entering labor force:	51,209
Expected pay:	$ 6.72/hour
	x 31 hours/wk
	x 50 wks:
	$10,416/year
Total increased individual income:	$533,392,944/year
Expected state tax rate:[1]	x 5.5%
Increased revenue to state:	$ 29,336,612/year

[1]This 5.5 percent represents the Department of Revenue's estimate of the proportion of gross income that will go to the state in combined income and sales taxes.

What individuals say they will do and what they actually do can vary, for many reasons. However, a few studies provide information about the extent to which mothers would actually enter the labor force (Young & Nelson, 1973; Grey, et al, 1984; Hosni & Donnan, 1979; Freis & Miller, 1981). Based on these studies, a reasonable estimate would be that 70 to 75 percent of all not employed mothers with a child under 13 who say they would look for work would actually enter the labor force if satisfactory, affordable child care were available. That translates into 31 percent of all non-employed mothers entering the labor force. If these women earn $6.72 an hour, the expected wage after placement from the Employment and Training Program, and worked 31 hours a week (the average number of hours worked by mothers with a child under 13, according to our parent survey), each woman would earn $10,416 per year. Table 9 shows the expected increased tax revenue for the state from this increased labor force participation.

Reduced Welfare Costs: According to our parent survey, over half of women not now employed who are in families receiving AFDC or other welfare assistance say they would look for work or training if satisfactory child care were available at a reasonable price. These women are eligible for voucher day care under the Employment and Training Program (ET), but none currently receive vouchers. There are several possible explanations for this -- families may not be aware of the ET program in their area, or they may face an availability, rather than affordability, problem. That is, they may know they are eligible for ET vouchers, but cannot find suitable care in their area.

Based on the available studies, a conservative estimate would be that 50 percent of welfare recipients with a child under the age of 13 who say they would look for work would actually do so. That translates into 26 percent of all welfare recipients who would enter the labor force and reduce or end their welfare dependency if satisfactory, affordable child care were available. Table 10 shows the expected reduction in welfare assistance if all worked full time and left the welfare rolls: in fact, some would continue to receive a partial grant, so the savings would be slightly less. In addition, there are costs associated with helping welfare recipients become ready for work and self-sufficiency. These offset the savings in AFDC in the short run, so Table 10 should be interpreted as showing the benefits to the state **after** the period of transition to self-sufficiency.

TABLE 10: REDUCED STATE EXPENDITURES FROM REDUCTION IN NUMBER OF WELFARE RECIPIENTS [1]

26 percent of not employed welfare recipients with children under age 13 enter the labor force and stop receiving welfare:

Estimated number of not employed recipients:		40,426
		x .26
Number entering labor force:		10,510.76
Average AFDC grant per family:	x	5,448/year
Total reduction in state AFDC spending:		$57,262,620/year

[1] Tax revenues from the wages for these recipients are included in Table 9.

Reduced Governmental Interventions: The High/Scope Perry Preschool Study found that, by the time participants reach age 19, an enriched early childhood education for economically disadvantaged children improves school success, reduces the need for special education services, increases employability and reduces the need for public welfare, and helps to prevent criminal activity. The researchers calculated that **the return to society for each dollar invested in quality pre-school education is $4.75**. Other studies have found similar effects. Lazar and Darlington (1982) analyzed data from twenty-one studies of low-income children. They found that children with preschool education, compared to children with no preschool, were less likely to need special education services, and had higher math and reading scores and higher IQ scores.

Improved Recruitment of Business and Industry: A stable, well-qualified and productive labor force is a significant factor in a business's selection of a location. The provision of child care enables parents to enter the labor force, improves productivity and stability, and contributes to school success and improved human capital. All of these factors help to attract business to Massachusetts, which in turn increases state revenues through corporate taxes, individual income taxes and increased sales taxes.

Increased Human Capital: According to our parent survey, over one third of mothers who are not employed would go to school or enter a training program if satisfactory child care were available at a reasonable price. One in five (20 percent) of these women have less than a high school education and 40 percent have only a high school diploma.

CHILD CARE IS IMPORTANT TO EMPLOYERS

Child care affects the bottom line for employers, through increased productivity and worker morale, reduced turnover and absenteeism, improved recruitment and human capital, and an improved public image. The measurable benefits outweigh the costs, according to the cost-benefit analyses of 147 of the companies surveyed by the National Employer Supported Child Care Project (Burud et al, 1984).

Productivity: In a survey of 415 companies that provide child care assistance to their employees, Burud found that 49 percent reported that child care raised productivity. Over one third (37 percent) reported that child care improved the quality of their products or services. One company, studied in-depth, found that increases in worker productivity ranged from 18 percent to 33 percent. Child care's value as a production incentive was estimated to be between $6,000 and $10,000 annually in 1981. As one manager noted, employees receiving child care assistance "work harder and do better because they want to progress and keep their jobs".

Of 5,000 workers at five corporations in the Midwest, 58 percent of the female workers and 33 percent of the male workers with young children felt that their child care concerns hurt their productivity. (Galinsky & Friedman, 1986). In an article in Inc. magazine (Fenn, 1987), Sheridan of PAL Corporate Child Care Inc. states that businesses lose $1,800 per year for each parent of a preschooler "either because they are on the phone or away from their offices because of child-related problems".

Morale: Burud found that 90 percent of companies reported that child care improved morale. As one executive noted: "Because of our child care referral services, employees feel that we care enough about their personal lives to make an effort and expenditure to help them."

Turnover: Almost two-thirds of companies reported that child care reduced turnover (Burud). Eighteen of the companies had records that permitted a comparison of turnover rates. The average turnover rate for all employees at these companies was 44 percent, while the average turnover rate for employees using the child care service was just 19 percent. Seventeen of the 18 companies found lower turnover rates for employees using the child care service than for the total pool of employees. At four companies studied in-depth, annual savings in turnover resulting from the child care program ranged from $25,000 to $2 million.

Absenteeism: Fifty-three percent of the companies surveyed by Burud reported that child care reduced absenteeism.

Recruitment: In a representative study of 600 adults in U.S. households with incomes of at least $25,000, 45 percent of those with a child under age six would consider changing jobs or returning to work if they knew of a company that provided flexible work hours (LAR/Decision Research, 1987). Thirty-four percent would change jobs or return to work if subsidized child care were available. In a study of 391 employees of companies offering child care services, 38 percent of the employees said they selected their company because of the child care assistance, and 69 percent were encouraged to stay because of it (Bureau of National Affairs, 1984).

Eighty-five percent (85 percent) of the companies surveyed by Burud reported that child care helped recruitment. Companies reported that child care helped recruit workers in many job categories, including production, clerical and professional jobs. In one company studied in-depth, only 20 percent of the previous recruitment effort was needed after the child care program was established. Child care improved equal employment opportunity for 40 percent of the companies.

Human Capital: Forty-two percent (42 percent) of the companies surveyed by Burud reported that child care improved the quality of the work force. A report prepared for the Select Committee on Children, Youth and Families cites two studies that show that child care for teen mothers encourages them to complete high school. In addition, the Perry Preschool Study shows that economically disadvantaged children who receive an enriched early childhood education have improved school success and increased employability by age 19.

Public Image: As the Chairman of the Board of Corning Glass said: "Child care is one of those small pockets of excellence by which corporations and their people are judged" (Burud). Eighty-five percent (85 percent) of the companies surveyed by Burud reported that child care was good for public relations.

ECONOMIC BENEFITS TO INDIVIDUALS

To examine the economic benefits to individuals, we selected three options of particular interest: two versions of an expanded sliding fee scale like the existing DSS contracted care program and the ET Voucher Day care program, and a refundable Massachusetts income tax credit for child care.

Sliding Fee Scale Subsidy Program #1

The current Sliding Fee Scale used by DSS for its contracted care slots covers families whose incomes are below 70 percent of the median income, adjusted for family size; once

families are in contracted care, they may stay in until their incomes reach 115 percent of the median. However, the program serves only a portion of all eligible families. Sliding Fee Scale Subsidy Program #1 (hereafter Subsidy #1) is just the current sliding fee scale, except that all families with less than or equal to 115 percent of the median income for their family size are assumed to be entitled to a subsidy. The current maximum payments by the state per day for each age of child and type of care are presumed to remain in effect. We also assume that all eligible families who currently purchase center-based or family day care will take advantage of the subsidy.

Sliding Fee Scale Subsidy Program #2

The second Sliding Fee Scale Subsidy Program (Subsidy #2) is an extension of the current maximum sliding fee rates to households at less than or equal to 135 percent of the median income, adjusted for family size.

Income Tax Credit Program

The tax credit program is modeled on the federal child care expense tax credit schedule, with one-third of the federal tax credit allowed against the household's Massachusetts state income tax bill. If the allowable tax credit exceeds the household's state income tax bill, the difference is assumed to be refunded to the household. For two-parent families to be eligible for the credit, both parents must work full time or be students, and the amount of the credit cannot exceed the income of the lower-earning spouse. Where only one parent is present, the amount of the credit cannot exceed that parent's income.

Methods

The steps of our analysis were:

- o Use the data from the survey of parents to derive a "demand curve" -- that is, an understanding of how the amount of care purchased will change as conditions change;
- o Use data from the survey of providers to derive a "supply curve" -- an understanding of how the amount of care provided relates to the price of care;
- o Combine knowledge of the supply and demand curves to predict the effect of the various policy options on consumers' choices and market prices;
- o Estimate the dollar value of the policies to consumers of child care.

Each of the three policy options is a price subsidy. Price subsidies, by lowering the effective price to consumers, will cause an increase in demand for the commodity -- in this case, child care services. In general, providers cannot be expected to supply increased quantities of a service without an increase in price. That price increase means that families not eligible for the subsidy are slightly worse-off -- they have to pay more. Our benefit analysis takes this effect into account.

We derive a measure called "direct economic benefits" -- the dollar value of each of the policies to consumers of child care. Our method allows us to determine the effect on individual consumers according to their income. The aggregate economic benefit is the summation of every consumer's benefit.

We are able to do this analysis for people who are already consumers of family or center-based care. We cannot perform the same kind of analysis for people who might be induced to begin using these forms of day care once the subsidy became available, because we cannot accurately predict their behavior. However, we are able to account for

some of the new market entrants in the more general cost-benefit analysis in the next section of this report.

Benefits of Subsidy #1: Table 11 shows the benefits of Subsidy #1, broken down by income group and type of day care consumed. The highest income group loses $2.31 per child per week, for consumers of center-based care, but all groups eligible for the subsidy program gain. The lowest income group gains $32.64 per child per week. This is clearly an effective program for targeting relief to low and moderate income families, but some moderate income families with incomes between 115 percent and 135 percent of median actually lose a bit under Subsidy #1 because they are not eligible for the subsidy.

Benefits of Subsidy #2: Table 12 shows the benefits for Subsidy #2. Under this program, the highest income group would lose $2.70 per child per week, but families with incomes between 115 percent and 135 percent of median become gainers under this program. Subsidy #2 effectively provides relief targeted to low and moderate income families up to 135 percent of median.

Benefits of the Tax Credit: Table 13 shows the benefits of the tax credit, for consumers of center-based and family day care. The highest income group gains $1.48 per child per week, and the lowest income group gains $2.10 per child per week. Unlike the sliding fee scale programs, the tax credit does not effectively target relief to low-income consumers.

Comparison of the Three Options: Using the economist's preferred criterion of economic benefits, the "best" policy is Subsidy #2, the sliding fee scale for all families with incomes less than 135 percent of median. The difference between this and Subsidy #1 is inclusion of the group between 115 percent and 135 percent of median family income, approximately 20 percent of the consumer population. The cost of including this group in the sliding fee program is relatively low since they are near the top of the sliding fee scale and therefore receive only a small subsidy; nevertheless, they are turned from net losers under Subsidy #1 to net gainers under Subsidy #2, and the total benefits to individuals are thereby increased by $25 million per year.

The Tax Credit Program, while it offers relief across the income spectrum, offers much less relief to low and moderate income families than do the subsidy programs.

TABLE 11: DISTRIBUTION OF ECONOMIC BENEFITS UNDER SUBSIDY #1 FOR INDIVIDUALS NOT NOW RECEIVING SUBSIDIES

A. CONSUMERS OF CENTER-BASED CHILD CARE

INCOME LEVEL % OF MEDIAN	AVERAGE GAIN PER CHILD PER WEEK	TOTAL GAIN FOR GROUP PER YEAR[1]	% OF CONSUMERS IN CATEGORY
0-70	$32.64	$49,625,856	22.8
70-100	9.90	7,167,600	10.9
100-115	11.04	5,595,072	7.6
115-135	-1.90	-1,994,620	15.8
135+	-2.31	-6,606,138	42.9
Net Benefit		$53,787,770	

B. CONSUMERS OF FAMILY DAY CARE

INCOME LEVEL % OF MEDIAN	AVERAGE GAIN PER CHILD PER WEEK	TOTAL GAIN FOR GROUP PER YEAR[1]	% OF CONSUMERS IN CATEGORY
0-70	$6.08	$ 4,662,016	19.8
70-100	0.76	385,168	13.2
100-115	5.49	596,214	2.8
115-135	-0.05	-39,820	20.8
135+	-0.11	-183,172	43.4
Net Benefit		$ 5,420,406	

TOTAL BENEFIT (CENTER & FAMILY DAY CARE) $59,208,176

[1]Based on 50 weeks of care per year

TABLE 12: DISTRIBUTION OF ECONOMIC BENEFITS UNDER SUBSIDY #2 FOR INDIVIDUALS NOT NOW RECEIVING SUBSIDIES

A. CONSUMERS OF CENTER-BASED CHILD CARE

INCOME LEVEL % OF MEDIAN	AVERAGE GAIN PER CHILD PER WEEK	TOTAL GAIN FOR GROUP PER YEAR[1]	% OF CONSUMERS IN CATEGORY
0-70	$32.64	$49,625,856	22.8
70-100	9.86	7,138,640	10.9
100-115	10.99	5,569,732	7.6
115-135	10.34	10,854,932	15.8
135+	-2.70	-7,721,460	42.9
Net Benefit		$65,467,700	

B. CONSUMERS OF FAMILY DAY CARE

INCOME LEVEL % OF MEDIAN	AVERAGE GAIN PER CHILD PER WEEK	TOTAL GAIN FOR GROUP PER YEAR[1]	% OF CONSUMERS IN CATEGORY
0-70	$ 22.56	$17,150,112	19.8
70-100	2.38	1,206,184	13.2
100-115	21.66	2,352,276	2.8
115-135	0.76	605,264	20.8
135+	-0.45	-749,340	43.4
Net Benefit		$20,564,496	

TOTAL BENEFIT (CENTER & FAMILY DAY CARE) $86,032,196

[1]Based on 50 weeks of care per year

TABLE 13: DISTRIBUTION OF ECONOMIC BENEFITS FOR INDIVIDUALS ELIGIBLE FOR THE TAX CREDIT

A. CONSUMERS OF CENTER-BASED CHILD CARE

INCOME LEVEL % OF MEDIAN	AVERAGE GAIN PER CHILD PER WEEK	TOTAL GAIN FOR GROUP PER YEAR[1]	% OF CONSUMERS IN CATEGORY
0-70	$ 2.10	$ 1,065,827	7.9
70-100	1.11	565,631	7.9
100-115	0.97	654,936	10.5
115-135	1.16	1,372,090	18.4
135+	1.48	5,252,187	55.3
Net Benefit		$ 8,910,671	

B. CONSUMERS OF FAMILY DAY CARE

INCOME LEVEL % OF MEDIAN	AVERAGE GAIN PER CHILD PER WEEK	TOTAL GAIN FOR GROUP PER YEAR[1]	% OF CONSUMERS IN CATEGORY
0-70	$ 0.76	$ 301,083	10.3
70-100	0.52	103,251	5.1
100-115	0.75	73,891	2.6
115-135	0.27	266,108	25.6
135+	0.48	1,033,889	56.4
Net Benefit		$ 1,778,222	

TOTAL BENEFIT (CENTER & FAMILY DAY CARE) $10,688,893

COSTS AND BENEFITS

The importance of child care services to parents and to society in general has increased dramatically in recent years. Some would argue that our collective investment in child care is now as much a part of the social infrastructure as are transportation and communications networks. When analyzing the benefits of child care programs, then, we need to look beyond the immediate benefits to consumers and try to understand how child care benefits society as a whole.

Expanded Subsidy Programs

The existing subsidy program cost the state about $100 million in 1987, excluding administrative costs for the voucher management agencies. According to our survey of parents, there were at least 59,000 children enrolled in licensed child care in June 1987 whose families had incomes below 70% of the median. The care for 17,500 of these children was subsidized by DSS, and the care for 7,350 by ET Choices -- a total of forty-two percent of the 59,000.

We believe that the 59,000 represent a conservative way of viewing the number of eligible children, since families using unlicensed family day care might enroll their child in a licensed program if subsidies were available. Therefore, in the following cost-benefit analysis, we have assumed that all families using unlicensed care would switch to licensed care in order to use the subsidy if it were universally available. This means we assume an eligible population of 70,000.

Additional families, now using relative care, self-care, work adjustment, etc., probably would use licensed day care if the subsidy were available to them, although we cannot say how many would do so. We can say, based on our survey, that the mothers of approximately 60,000 children, whose family incomes are under 70 percent of the median, feel they would look for work if satisfactory, affordable child care were available.

Serving all children who are eligible would cost the state more than it now spends. The subsidy programs we have considered for our cost-benefit analysis go even further, extending eligibility to more middle-income families, and would therefore cost even more. Of course, the state treasury is not the only potential source of funds for child care subsidies: but regardless of where the money is to come from -- the state, federal government, private philanthropy, employers -- potential funders need to know whether the investment is worth it. How do the benfits of expanded child care subsidies stack up against the costs?

First, we need to make it clear that we can't precisely predict the total cost of a new entitlement program, because:

- we don't know how many people who are not now consumers of licensed day care would be induced to enter the market by the offer of a subsidy, and
- we cannot predict how many families eligible for the subsidy would fail to take advantage of it, for any number of reasons.

What we can do is to estimate the cost of serving two groups -- current consumers of center based and family day care, and people who would be induced by a subsidy to enter the day care market in order to enter the labor market. The characteristics of both of these groups are known from our survey of parents.

Tables 14 and 15 show the cost of covering current consumers of center-based and family day care, licensed and unlicensed, and of covering new labor force entrants, under expanded subsidy programs. For Massachusetts to have converted the present eligibility program into an entitlement program that would serve all families under 115 percent of median income would have cost $319 million in FY 87, more than three times the actual expenditure. As the appropriation for these programs has since increased, the present distance between eligibility and entitlement costs is probably somewhat less. For a relatively modest additional cost of $11 million, families up to 135 percent of the adjusted median income could be covered.

TABLE 14: COST OF SUBSIDIZED CHILD CARE UNDER SUBSIDY #1

POPULATION	# CHILDREN SERVED	ANNUAL $ COST IN MILLIONS)
Current Programs (DSS & ET Voucher)	24,850	100
Cover rest of 0-70%	+ 45,612	85.3
Cover 70-115%	+ 36,924	36.7
Cover new labor force entrants	+ 65,809	97.3
TOTAL:	173,195	319.3

TABLE 15: COST OF SUBSIDIZED CHILD CARE UNDER SUBSIDY #2

POPULATION	# CHILDREN SERVED	ANNUAL $ COST (IN MILLIONS)
Current Programs (DSS & ET Voucher)	24,850	100
Cover rest of 0-70%	45,612	85.9
Cover 70-135%	+ 73,848	47.1
Cover new labor force entrants	+ 70,154	99.7
TOTAL:	214,464	332.7

Cost of Tax Credit

This program would cost the state $30.8 million in revenues to cover those families currently using paid center-based or family day care. To cover all eligible families currently using care of any kind would cost $188.2 million. Since the program would be of little benefit to low income families, we do not anticipate that it would encourage substantial new labor force participation, so there would be little additional cost for new labor force entrants.

Weighing Costs and Benefits

There are two kinds of benefits that can be compared to these costs:

o Economic benefits -- that is, an increase in the output of the Massachusetts economy;
o Net expenditures over revenues of the state treasury.

Economic benefits include the direct benefits to the consumers who actually receive the subsidy, which are described in the previous section. These alone will not normally be quite as great as the cost to the treasury for any subsidy program. However, child care has additional benefits, such as:

o the additional wages and profits generated by increased labor force participation;
o improvements in human capital created as child care makes further education possible for parents;
o the increased profitability and higher wage rates made possible by improved worker productivity and morale;
o long-term improvements in human capital related to the more favorable life outcomes of children in child care whose family income is thereby increased, and/or who benefit from early childhood education components of their day care program.

We can estimate some of these benefits, but others, while known to exist, cannot be quantified.

Net expenditures over revenue of state government are less than the appropriation for a child care program, because the state recovers costs in the following ways:

o Increased tax revenues derived from the higher incomes and spending of new labor force entrants;
o Reduced spending on AFDC;
o Reduced spending for special education, criminal justice and social services;
o Increased tax revenues associated with improved ability to recruit industry to Massachusetts.

We cannot quantify all the benefits of providing affordable child care, but we do know that the benefits we can measure far exceed the costs, although increased revenues to the state do not offset all of the increased expenditures.

Net Economic Benefits: Table 16 summarizes the net economic benefit to Massachusetts of the three options discussed above. We cannot calculate dollar values for human capital or business profits, so we show them with question marks for values. The direct benefits to

consumers shown here exceed those shown in Tables 11 through 13 because they include benefits to new labor force entrants.

Table 16 shows that of the three options, Subsidy #2 is the best from a cost-benefit standpoint. The tax credit, while relatively inexpensive, also provides relatively little benefit.

TABLE 16: NET ECONOMIC BENEFITS[1]

OPTION	ANNUAL COST[2]	BENEFITS TO CONSUMERS	WAGES[3]	HUMAN CAPITAL	INCREASED PROFITS TO BUSINESS	NET ECONOMIC BENEFIT
SFS #1	219.3	116.2	253.9	?	?	150.8+
SFS #2	232.7	157.0	294.0	?	?	218.3+
Tax Crdt	30.8	10.7	78.7	?	?	58.6+

[1]All figures in millions of dollars.
[2]Costs for consumers using family and center-based day care, in addition to the cost of the current programs of about $100 million/year. Since we can only calculate benefits for families not now receiving subsidies, those are the only families we have included in the cost calculation.
[3]Wages of women who would become employed if affordable child care were available. For the tax credit option, we assumed that only women from higher income families (above 135 percent of median) would benefit sufficiently to be induced to enter employment.

Net Expenditures Over Revenues: The actual cost to the state of the hypothetical policies would be less than the costs given in table 16, because of increased taxes and reduced welfare expenditures. Again, there are important benefits we could not quantify, such as increased taxes on business, so these estimates overstate the actual cost to the treasury. Again, Subsidy #2, while resulting in slightly greater net expenditures than subsidy #1, is extremely cost-effective, helping 30,000 additional children and generating additional net economic benefits of $68 million for an additional expenditure of about $11 million.

TABLE 17: NET EXPENDITURES OVER REVENUES

	GROSS COST	INCREASED TAXES	REDUCED AFDC	NET COST
SFS #1	219.3	13.9	48.5	156.9
SFS #2	232.7	16.2	48.5	168
Tax Crdt	30.8	4.3	0	26.5

As it turns out, the tax credit is the least cost-effective option. Since we do not believe it will be a sufficient inducement for many low-income women to enter the labor force, it generates little in the way of increased taxes and, we predict, would have no effect on AFDC expenditures.

Again, these analyses represent options, but are not the only possible policy approaches. They are presented as examples to illustrate the clear benefits of investing in affordable child care.

Debby is the single mother of 18-month-old twins, and works as an accountant. She proved to be ineligible for ASAP because she made slightly more than the cut-off of $24,696 for a family of three. Currently the toddlers' grandmother cares for them two days a week, and unlicensed babysitters take them the remaining three days. In the near future, the grandmother will no longer be able to provide care, so Debby has been looking for a family day care provider or a center. Because of the age of her children and the cost of care, she is having difficulty. Paying for the current arrangement is a financial strain. "We have to scrimp.... I buy less food and I have to closely watch other expenses. I want very much to keep working but the cost of day care makes this difficult."

CONCLUSIONS

The challenge of providing and paying for affordable child care is still a large one in Massachusetts. Efforts have been made by state government, employers and private philanthropy to make child care affordable, but much more needs to happen.

Only 42 percent of children from low-income families are currently receiving the state subsidies for which they are eligible -- not counting those children who are not in care at all because their families can't afford it. The majority of low-income families who pay for care pay more than they can afford. Over half of all low income families pay more than ten percent of their annual income for child care, and many of these pay more than 15 percent. Moderate income families also face an affordability problem, as 13 percent of them are paying 15 percent or more of their income for child care.

The cost of child care is a principal factor keeping mothers of young children out of the labor force. Many families now forego income rather than struggle with the high cost of child care. Others patch together inadequate or unsatisfactory arrangements which are often not beneficial to their children.

Increasing numbers of children will be needing child care in the future. With national projections of maternal employment steadily rising, Massachusetts can anticipate almost 250,000 children under six years of age, and more than 160,000 older children, who will need non-parental care by 1995, an increase of 23 percent in ten years.

Making child care affordable will mean a multi-year effort involving many sectors of society: local, state and federal government; private employers; and philanthropic organizations. It must be done in conjunction with ongoing efforts to both increase the supply of child care, and maintain the quality of the care children receive. What is clear is that if the Massachusetts economy is to continue to grow, the labor force must expand, and child care is key to making this happen.

REFERENCES

Baden, C. & Friedman, D.E. (1981). New management initiatives for working parents. Report from an April 1981 conference, Wheelock College.

Berrueta-Clement, J., Schweinhart, L., Barnett, W., Epstein, A., & Weikart, D. (1984). Changed lives: The effects of the Perry Preschool Program on youths through age 19. Ypsilanti, MI: High Scope Press.

Bickelhaupt, S. (1987). Cities assume greater role in answering day-care needs. The Boston Globe, June 29, 1987.

Blank, H., & Wilkins, A. (1985). Child care: The state's response, 1981 to 1985. Washington, DC: Children's Defense Fund.

Blank, H., & Wilkins, A. (1986). State child care fact book: 1986. Washington, DC: Children's Defense Fund.

Blau, D. M. & Robins, P.K. (1986). Fertility, employment, and child care costs: A dynamic analysis. Paper presented at the annual meeting of the Population Association of America, San Francisco (April).

Bureau of National Affairs, Inc. (1984). Employers and child care: Development of a new employee benefit.

Burud, S. L., Aschbacher, P. R. & McCroskey, J. (1984). Employer-supported child care: Investing in human resources. Dover, MA: Auburn House.

Carey, B. J. & Pell, K. M. (1987). Capital formation and asset acquisition project interim report.

Child Development Programs. Advisory Committee (1981). Employer sponsored child care: Policy discussions, recommendations and bibliography. Sacramento, CA.

Children's Defense Fund (1987). A children's defense budget FY 1988: An analysis of our nation's investment in children. Washington, DC.

Committee for Economic Development. Research and Policy Committee. (1987). Children in need: Investment strategies for the educationally disadvantaged. New York.

Commonwealth of Massachusetts, Office of Human Resources (1987). Partnerships for day care: Final report of the Governor's day care partnership initiative. (June).

Dubnoff, S. (1986). Work-related day care: A survey of parents. FY'86 day care report. Boston: Department of Social Services.

Ehrlich, E. (1986). Child care: The private sector can't do it alone. Business Week, (October 6).

Fenn, D. (1987). Kid stuff: How to create affordable alternatives to on-site day care. Inc. (September).

Fernandez, J. P. (1986). Child care and corporate productivity: Resolving family/work conflicts. AT&T.

Freis, R., & Miller, M. (1981). The economic impact of subsidized child care: An economic analysis of resources for family development. Day Care and Early Education, (Fall).

Friedman, D. E. (1986). Child care and employees' kids. Harvard Business Review. 64: 28-30. (March/April).

Galinsky, E. & Friedman, D. (1986). Investing in quality child care: A report for AT&T. (November).

Gray, W., Kafalas, L., & Knight, D. (1984). An evaluation of the Massachusetts voucher day care project. Boston: Department of Social Services.

Hausman, J. (1981). Exact consumer's surplus and deadweight loss. American Economic Review. 71, (4):662-676.

Hofferth, S. L. & Phillips, D. A. (1987). Child care in the United States, 1970 to 1995. Journal of Marriage and the Family, 49, 559-571.

Hosni, D., & Donnan, B. (1979). An economic analysis of child care supports to low income families affected by AFDC policy changes of 1981. Washington, DC: Center for the Study of Social Policy.

Isensee, L. C. & Campbell, N. D. (1987). Dependent care tax provisions in the states. National Women's Law Center.

Kamerman, S. B. (1986). Business Week (October 6).

LAR/Decision Research. (1987). Testimony before the Select Committee on Children, Youth and Families. Hearings on "Child care: Key to employment in a changing economy."

Laws, B. (1987). The community development block grant and human services in the Boston metropolitan area: A three-year trend analysis. Boston: United Way of Massachusetts Bay.

Lazar, I., & Darlington (1980). Lasting effects after preschool: A report of the consortium for longitudinal studies. Education Commission of the States, Denver, CO.

Marx, F. & Seligson, M. (1987). Draft notes on state findings from the public school early childhood study. Wellesley College Center for Research on Women, Wellesley, MA.

Massachusetts Public Interest Research Group (1987). Raising Massachusetts: Building a child care linkage policy. MASSPIRG (October).

McMurray, G., & Kazanjian, D. (1982). Day care and the working poor: The struggle for self-sufficiency. New York: Community Service Society of New York.

Minneapolis Business Community Employment Alliance. Future Employability/ Early Childhood Development Task Force (n.d.). Preventing unemployment: A case for early childhood education.

Newton Child Care Commission (1987). New directions for child care in the city of Newton.

Presser, H. B. (1980). Working women and child care. Paper presented at Research Conference on Women: A Developmental Perspective. University of Maryland.

Presser, H. B., & Baldwin, W. (1980). Child care as a constraint on employment: Prevalence, correlates, and bearing on the work family nexus. American Journal of Sociology 85: 1202-1213.

Service Employees International Union (n.d.) Solutions for the new workforce: Family leave policies.

Select Committee on Children, Youth and Families (1987). Child care: Key to employment in a changing economy. U.S. House of Representatives, Washington, DC: U.S. Government Printing Office.

U.S. General Accounting Office (1986). Child care: Employee assistance for private sector and federal employees.

Young, D., & Nelson, R. (1973). Public policy for day care for young children. Lexington, MA: Lexington Books.

Zigler, E. F. & Gordon, E. W., Eds. (1982). Daycare: Scientific and social policy issues. Boston: Auburn House.

Appendix

If we assume that those foundations that had funded child care in 1985 funded child care at the same level, and that other foundations not included in this table also provided funding for child care programs, we can estimate that Massachusetts private foundations made over $1 million available for child care in 1986.

PHILANTHROPIC SUPPORT FOR CHILD CARE

	1984	1985	1986
The Boston Foundation	ND	ND	$360,000 *
Boston Globe Foundation	ND	$137,800	ND
Godfrey M. Hyams Trust	$380,292	$195,000	ND
Greater Worcester Community Foundation	ND	ND	$ 74,450
Theodore Edson Parker Foundation	ND	$ 68,000	ND
W.E. & B.E. Schrafft Charitable Trust	ND	ND	$ 60,000
Polaroid Foundation	$ 64,750	$ 46,000	ND
The Boston Company	$ 19,350	$ 8,700	$ 28,046
Cambridge Foundation	ND	ND	$ 23,000
Essexbank Foundation	ND	ND	$ 16,500
Perpetual Benevolent Funds	ND	ND	$ 15,000 *
Adelaid Breed Bayrd Foundation	ND	$ 3,000	$ 12,000
John W. Bohnton Fund	ND	ND	$ 7,500
Shawmut Charitable Foundation	$ 1,300	$ 2,000	$ 3,500
Total (excluding missing data):	ND	$460,000	$599,996
1986 Total[1]:			$978,796

[1]Assuming that foundations with no data gave grants at the same level as in 1985.

ND = no data; * data for fiscal year. All other data for calendar years.